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SACHI A. HAMAI  
Chief Executive Officer

## County of Los Angeles CHIEF EXECUTIVE OFFICE

Kenneth Hahn Hall of Administration  
500 West Temple Street, Room 713, Los Angeles, California 90012  
(213) 974-1101  
<http://ceo.lacounty.gov>

September 14, 2016

To: Supervisor Hilda L. Solis, Chair  
Supervisor Mark Ridley-Thomas  
Supervisor Sheila Kuehl  
Supervisor Don Knabe  
Supervisor Michael D. Antonovich

From: Sachi A. Hamai  
Chief Executive Officer

Board of Supervisors  
HILDA L. SOLIS  
First District

MARK RIDLEY-THOMAS  
Second District

SHEILA KUEHL  
Third District

DON KNABE  
Fourth District

MICHAEL D. ANTONOVICH  
Fifth District

### **UPDATE ON THE HIGH-SPEED RAIL, PALMDALE-BURBANK SECTION (ITEM NO. 23, AGENDA OF JUNE 28, 2016)**

On June 28, 2016, the Board of Supervisors (Board) approved a motion related to the California High-Speed Rail, Palmdale-Burbank Section as follows: 1) Acknowledges that the High Speed Rail Authority (Authority) has proposed routes that threaten severe impacts to homes, quality of life, and sensitive environmental areas that raise tremendous concerns; 2) Opposes the Refined E-2 Alignment, as currently proposed, and any other variation of this alignment that would cross the Big Tujunga Wash at or above grade; 3) Recognizes it has been one year since Supervisors Antonovich and Kuehl asked the Authority to expedite hydrological and technical studies so that communities in Los Angeles County have a clear understanding of when the studies are to begin and end, and when the Authority will be making a decision based on the results of those studies; 4) Acknowledges these studies will provide critical information regarding potential impacts on existing areas of concern to the Board, including but not limited to the communities of Shadow Hills, Lakeview Terrace, and Acton, as well as the recently recognized San Gabriel Mountains National Monument; 5) Requests that the Authority clarify the hydrological and technical studies process and indicate when these studies will be made available to the public; and 6) Sends a 5-signature letter to the Authority's Board and the Los Angeles County State Delegation reflecting the aforementioned. The Board further directed the Chief Executive Officer (CEO) to coordinate and collect input from all impacted County departments, on all High-Speed Rail alignments in the environmental process throughout the County of Los Angeles, and report back to the Board on an as needed basis in order to facilitate departmental involvement in the process.

*"To Enrich Lives Through Effective And Caring Service"*

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## **5-Signature Letter to the Authority**

On July 1, 2016, the Board sent a 5-signature letter to the Chair of the Authority and copied the Los Angeles County State Delegation, addressing Items 1 through 6 of the motion (Attachment 1). The Authority responded to the Board on August 1, 2016 (Attachment 2). In response to the Board's concerns regarding the Refined E-2 Alignment, the Authority stated, "...this issue will be studied carefully and objectively, but at this time we are not prepared to say that any of the alignments cannot be developed successfully with appropriate mitigation." However, as the Authority reaches a decision point, it committed in its response to work closely with Board Offices to review any such determination. The Authority also stated that it is "continuing to review all feedback from the community and is constantly working to refine and gather more data on the set of alternatives. The ultimate outcome of this detailed evaluation process will be the identification of a preferred alternative for inclusion in the draft environmental document, which is planned for the spring of 2017." Regarding the Board's inquiry about hydrological and technical studies, the Authority stated that it commissioned and completed three studies in the Winter and Spring of 2016, which are available to the public on the Authority's website: 1) an *Equine Review* conducted by the Mineta Transportation Institute at San Jose State University; 2) a *Tunnel Review* conducted by the Mineta Transportation Institute at San Jose State University; and 3) a *Groundwater Study Review* conducted by California State University, Fullerton, which provide insight into what is generally known within the academic and scientific community regarding these key topic areas.

## **Departmental Input on the High Speed Rail, Palmdale – Burbank Section**

Attachment 3, provides departmental input from Regional Planning, Public Works, Parks and Recreation, Public Library, Public Health – Environmental Health, and the Consolidated Fire Protection District. Departments reviewed the April 2016, Supplemental Alternatives Analysis (SAA) Report prepared by the Authority presenting three refined alignment alternatives for the Palmdale - Burbank Project Section (Refined State Route-14, Refined E-1, and Refined E-2). Departments also reviewed the Equine, Tunnel, and Groundwater Studies referenced in the Authority's August 1, 2016 letter. These comments will be forwarded to the Authority for consideration.

## **High Speed Rail Timeline**

The Authority anticipates identifying the preferred alternative for the Draft Environmental Impact Report (EIR) based on ongoing engagement with agencies and the community by the Winter of 2016, including holding community open house meetings and meeting

Each Supervisor  
September 14, 2016  
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with other stakeholder groups. The Authority plans to release the Draft EIR for public review in the Spring of 2017 with a Final EIR approved by late 2017. The CEO will update the Board once the Authority determines the Draft EIR preferred alternative. The Departments will provide the CEO with their comments on the Draft EIR to submit to the Authority, upon review by County Counsel, once the document is released.

If you have any questions, please feel free to contact Dorothea Park, at (213) 974-4283, or via e-mail at [dpark@ceo.lacounty.gov](mailto:dpark@ceo.lacounty.gov). For questions related to specific departmental comments, contact names, phone numbers, and e-mail addresses have been provided in Attachment 3.

SAH:JJ:DPH:DSB  
DSP:JT:acn

Attachments (3)

c:     Executive Office, Board of Supervisors  
         County Counsel  
         Fire  
         County Library  
         Parks and Recreation  
         Public Health  
         Public Works  
         Regional Planning  
         California High Speed Rail Authority



# **ATTACHMENT 1**



LORI GLASGOW  
EXECUTIVE OFFICER

## COUNTY OF LOS ANGELES BOARD OF SUPERVISORS

KENNETH HAIN HALL OF ADMINISTRATION  
300 WEST TEMPLE STREET, ROOM 300  
LOS ANGELES, CALIFORNIA 90012  
(213) 974-1411 • FAX (213) 621-0606

### Attachment 1

MEMBERS OF THE BOARD

HILDA L. SOLIS

MARK RIDLEY-THOMAS

SHEILA KUEHL

DON KNABE

MICHAEL D. ANTONOVICH

July 1, 2016

Dan Richard, Chair  
California High-Speed Rail Authority  
770 L Street, Suite 1160  
Sacramento, CA 95814

Dear Chairman Richard:

**RE: Refined E-2 Alignment Alternative for the Palmdale-to-Burbank High-Speed Rail Project Segment**

We are writing to express our opposition to the Refined E-2 Alignment, as currently proposed, for the California High-Speed Rail Authority's (Authority) Palmdale-to-Burbank High-Speed Rail project segment, and any other variation of this alignment that would cross the Big Tujunga Wash at or above grade.

The proposed Refined E-2 Alignment poses tremendous impacts to local communities (e.g., Lake View Terrace and Shadow Hills), environmental resources like the Big Tujunga Wash, equestrian activities and the general quality of life for this part of Los Angeles County. The Refined E-2 Alignment also presents environmental justice concerns, as it will divide the Lake View Terrace community through an at-grade alignment.


In June 2015, Supervisors Antonovich and Kuehl requested that the Authority expedite the hydrological and technical studies, which will provide critical information regarding potential impacts on areas of concern, including the communities of Shadow Hills, Lakeview Terrace, and Acton, as well as the recently recognized San Gabriel Mountains National Monument. We have yet to receive clarification on that process or a timeline for their completion.


Chairman Dan Richard  
July 1, 2016  
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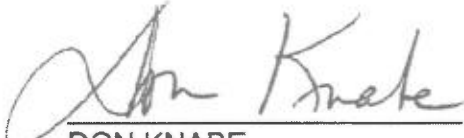
Any proposed route that threatens severe impacts to homes, quality of life, and sensitive environmental areas raises tremendous concerns. For these reasons, the County of Los Angeles opposes the Refined E-2 Alignment, as currently proposed, for the Palmdale-to-Burbank High-Speed Rail project segment. We also request that the Authority clarify the process for expediting the hydrological and technical studies and indicate when they will be made available to the public.

Thank you for your consideration of this important matter.

Sincerely,

  
HILDA L. SOLIS  
Chair of the Board  
Supervisor, First District

  
MARK RIDLEY-THOMAS  
Supervisor, Second District

  
DON KNABE  
Supervisor, Fourth District

  
SHEILA KUEHL  
Supervisor, Third District  
  
MICHAEL D. ANTONOVICH  
Supervisor, Fifth District

c: Los Angeles County Legislative Delegation

# **ATTACHMENT 2**



August 1, 2016

**BOARD MEMBERS**

**Dan Richard**  
CHAIR

**Thomas Richards**  
VICE CHAIR

**Lou Correa**

**Daniel Curtin**

**Bonnie Lowenthal**

**Lorraine Paskett**

**Michael Rossi**

**Lynn Schenk**

**Jeff Morales**  
CHIEF EXECUTIVE OFFICER

EDMUND G. BROWN JR.  
GOVERNOR



The Honorable Hilda L. Solis  
The Honorable Mark Ridley-Thomas  
The Honorable Sheila Kuehl  
The Honorable Don Knabe  
The Honorable Michael D. Antonovich  
Los Angeles County Supervisors  
500 West Temple St.  
Los Angeles, CA 90012

Dear Supervisors Solis, Ridley-Thomas, Kuehl, Knabe and Antonovich:

Thank you for your recent communication dated July 1, 2016 regarding the Palmdale to Burbank Project Section of the high-speed rail program and the motion you adopted at the June 28, 2016 Board of Supervisors meeting. I respect your concerns for the both natural environment and the communities you represent. Let me address the issues you raised as best I can:

**Alternative Alignments**

The California High-Speed Rail Authority (Authority) is presently in the process of full environmental review of various alignments in the corridor from Palmdale to Burbank. This review is a joint NEPA-CEPA process and is presently looking at three distinct alignment alternatives. These alternatives have been developed with input from many parties, including elected officials, public policy leaders, stakeholders and private citizens. As part of this process, we have substantially modified an earlier alignment along the SR 14 route through Santa Clarita, San Fernando and Pacoima, due to environmental justice impacts that appear untenable (see attached map). This was done directly in response to concerns from the community, a decision that we believe is consistent with law and with public policy imperatives to protect the most sensitive communities.

We have also made modifications to the other alignment alternatives that would largely tunnel under the San Gabriel Mountains. These changes were made for engineering and geotechnical reasons. We believe the remaining alternatives are all potentially viable, subject, of course, to the full environmental analysis. We understand your position regarding an above-ground crossing of the Tujunga Wash and the uniqueness of the communities that surround the Wash. This issue will be studied carefully and objectively, but at this time we are not prepared to say that any of the alignments cannot be developed successfully with appropriate mitigation. As we reach that decision point, I commit that we will work closely with your offices to review any such determination.

While we have made much progress in improving the alternatives under evaluation, we are continuing to review all feedback from the community and are constantly working to refine and gather more data on the set of alternatives. The ultimate outcome of this detailed evaluation process will be the identification of a preferred alternative for inclusion in the draft environmental document, which is planned for the spring of 2017.

### **Independent Technical Studies**

As you mentioned, on June 2, 2015, the Authority received Supervisor Antonovich's, Supervisor Kuehl's and City Councilmember Fuentes' request for hydrological and technical studies. In response to their request, on June 9, 2015, the Authority Board directed staff to commission early independent studies on key issues with the goal of answering questions about high-level assumptions being made regarding the feasibility of certain design means and methods under consideration. We interpreted the request as a way to address certain key issues most causing public anxiety early in the process, without having to wait for the full environmental process to run its course.

These studies focused on gathering a wide spectrum of available data from local and worldwide sources to provide information regarding the proposed concepts under study at the time. The following reports were completed in the winter and spring of 2016 and are available on the Authority's website at the following link:

[http://www.hsr.ca.gov/Programs/Statewide\\_Rail\\_Modernization/Project\\_Sections/palmdale\\_burbank.html](http://www.hsr.ca.gov/Programs/Statewide_Rail_Modernization/Project_Sections/palmdale_burbank.html)

- Equine Review conducted by Mineta Transportation Institute at San Jose State University\*
- Tunnel Review conducted by Mineta Transportation Institute at San Jose State University\*
- Groundwater Study Review conducted by California State University, Fullerton

These reports provide insight into what is generally known within the academic and scientific community regarding these key topic areas. They also provided us with a sense of what has and has not been successful on past similar projects throughout the world. Unfortunately, as we moved through this process, it became clear that regardless of the outcome of the studies, public skepticism has remained. While I think this has been unfortunate and unjustified, it has become clear to us that the well-intentioned effort to provide early information on key issues probably will not be satisfactory to some members of the public and we will have to rely instead on the more comprehensive draft environmental documents to address these issues.

Therefore, since geologic and geotechnical issues are analyzed in depth as part of the environmental document it seems prudent to release these detailed studies, rather than a higher level study that was

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\* The Mineta Transportation Institute (MTI) is an arm of California State University, San Jose. The work of the Institute on these studies was funded by the U.S. Department of Transportation. The High-Speed Rail Authority, despite claims by some citizens groups to the contrary, had no oversight or influence on the studies, a point that MTI officials have made clear in response to media inquiries.



delayed due mainly to the changes in alignment that were made with the last Supplemental Alternatives Analysis.

### **Ongoing Communication**

For any and all alignments, the prospect of new infrastructure development can cause concern in affected communities. Throughout the process, we strive to keep communities along our project sections informed and engaged. As has been our practice, we meet with various affected individuals and groups one-on-one, and make presentations to many community organizations such as neighborhood councils, service groups, business organizations, and the like. We also regularly host a variety of small group meetings, working meetings, and large public forums to provide the community at large an opportunity to discuss issues and learn about the environmental planning process.

We keep a careful record of the feedback we receive to ensure that the community's perspective is shared directly with the staff developing the environmental documents. Attached you will find a representative example of our multi-faceted approach to communicating with local communities – the Authority's record of conversations and meetings since July 2014 with the Save Angeles Forest for Everyone (SAFE) and Shadow Hills Property Owners Association (SHPOA) groups – for your review and information.

We had planned to hold our next round of public meetings over the course of the next few weeks, but we have placed these on hold due to the recent Sand Fire tragedy. Our staff is currently reviewing options to reschedule these meetings and will share with you the dates as our plans develop.

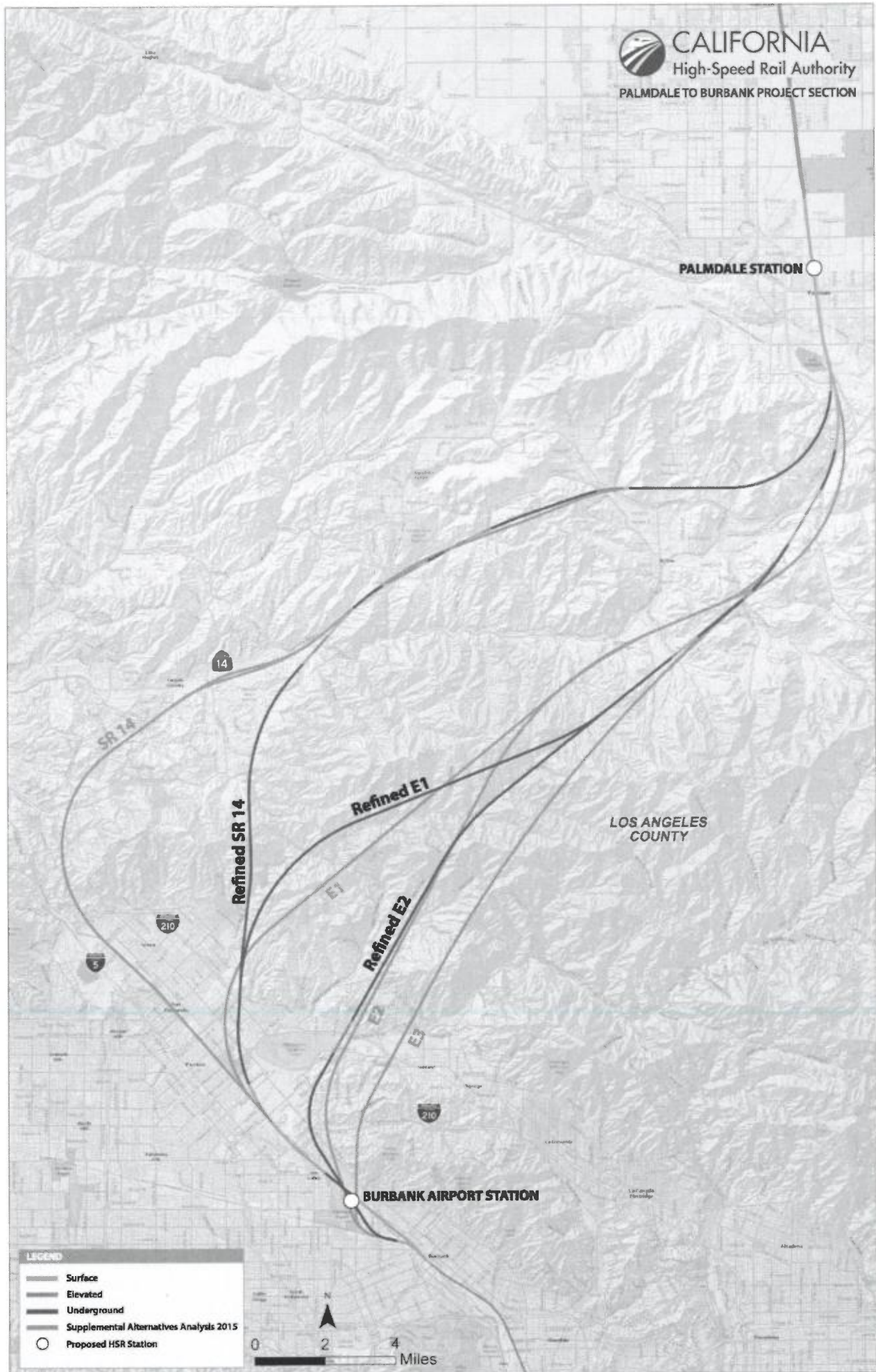
We will continue to keep your offices informed of our progress and the Authority's senior leadership and board members, including myself, are available any time to address questions and concerns with you or your staff. Thank you again for your input on this very important matter.

Sincerely,



Dan Richard  
Chair, Board of Directors  
California High-Speed Rail Authority

(enclosure)



**California High-Speed Rail Authority**  
**Palmdale to Burbank Project Section**  
**Foothills Communities Chronology of Events, Comments & Meetings**  
As of 7-13-16

DATE	ACTIVITY	SUBJECT	NOTES	CHSRA RESPONSE
7/17/2014	CHSRA Presentation	Presentation to Foothill Trails District Neighborhood Council.	Meeting notes on file.	
8/13/2014	CHSRA Presentation	Presentation to Sunland-Tujunga Neighborhood Council.	Meeting notes on file.	
<b>July 24 - September 12, 2014: CHSRA SCOPING PERIOD (7 meetings, 916 in attendance)</b>				
8/14/2014	CHSRA Scoping Meeting	Held at Lake View Terrace Recreation Center; one of seven Scoping Meetings.	Meeting notes on file.	
8/19/2014	Community Letter	High-Speed Rail Burbank to Bakersfield Proposal for NO Negative Community Impacts	Submitted by Constance Saunders	Receive and file.
8/20/2014	CHSRA Presentation	Presentation to Pacolima Neighborhood Council	Meeting notes on file.	
8/25/2014	Community Letter	Scoping Comment	Submitted by Constance Saunders	12/2/14 Response sent
8/26/2014	CHSRA Meeting	First in-person meeting w/ SHPOA (prior to SAFE Coalition being created)	Meeting notes on file.	
8/28/2014	CHSRA Presentation	Presentation to Sylmar Neighborhood Council	Meeting notes on file.	
8/29/2014	SHPOA Letter	High-Speed Rail/Palmdale to Burbank	Submitted by William Eick/SHPOA	Scoping meeting thank you eblast
9/8/2014	CHSRA Tour & Meeting	Tour and small group meeting with SAFE community representatives.	Meeting notes on file.	
9/11/2014	SHPOA E-Mail	Elimination of High-Speed Rail/Palmdale to Burbank Alternative Route Through Angeles National Forest	Submitted by David DePinto/SHPOA	April 2015 Eblast
11/13/2014	CHSRA Presentation	Presentation to Valley Alliance of Neighborhood Councils (VANC)	Meeting notes on file.	
12/3/2014	Community Letter	High-Speed Rail	Submitted by Constance Saunders	Scoping meeting thank you eblast
12/3/2014	CHSRA Meeting	Small group meeting exclusively with SHPOA/SAFE community members in advance of and on site at CHSRA Open House meeting.	Meeting notes on file.	
<b>December 2-13, 2014: CHSRA OPEN HOUSES (7 meetings, 963 in attendance)</b>				
12/3/2014	CHSRA Open House Meeting	Held at Stonehurst Recreation Center (Foothill communities); one of seven Open House Meetings.	Meeting notes on file.	
12/10/2014	CHSRA Open House Meeting	Held at Olive Vista Middle School (Sylmar); one of seven Open House Meetings.	Meeting notes on file.	
12/22/2014	SAFE Letter / Position Statement	Immediate Elimination of East Corridor Alternatives from Palmdale to Burbank Project Section	Submitted by David DePinto/SAFE	5/21/15 Chairman Dan Richard letter.



**California High-Speed Rail Authority**  
**Palmdale to Burbank Project Section**  
**Foothills Communities Chronology of Events, Comments & Meetings**  
As of 7-13-16

DATE	ACTIVITY	SUBJECT	NOTES	CHSRA RESPONSE
1/8/2015	CHSRA Phone Call	Phone meeting with David DePinto and SAFE representatives in advance of SAFE Community Meeting	Meeting notes on file.	
<b>January 13, 2015: SAFE COMMUNITY MEETING (2,000+ in attendance)</b>				
January to April '15	Community - East Corridor Template Form	No subject line		
1/13/2015	SAFE Template Letter	Elimination of East Corridor Alternatives from Further Consideration and From EIR/EIS for the Palmdale to Burbank Project Section	FORM CAMPAIGN: More than 185 template forms were received in the mail with an "E4" alignment route preference chosen. Approximately 10 of the forms were received in Spanish. FORM LETTER CAMPAIGN: Many SAFE-template letters received from January-April.	3/13/15 and 4/1/15 East Corridor response mass mailings March 2015 SAFE Eblast
1/21/2015	CHSRA Presentation	Presentation to Pacoima Neighborhood Council	Meeting notes on file.	
1/31/2015	CHSRA Presentation	Presentation to Sunland-Tujunga Neighborhood Council (Town Hall Meeting)	Meeting notes on file.	
2/7/2015	CHSRA Presentation	Presentation to Los Angeles Neighborhood Council Coalition	Meeting notes on file.	
2/18/2015	CHSRA Presentation	Presentation to Pacoima Neighborhood Council	Meeting notes on file.	
2/19/2015	CHSRA Presentation	Presentation to Foothill Trails District Neighborhood Council	Meeting notes on file.	
2/19/2015	CHSRA Presentation	Presentation to Crescenta Valley Town Council	Meeting notes on file.	
2/23/2015	CHSRA Tour & Meeting	Tour and small group meeting with CHSRA Chairman Dan Richard, City Council Member Felipe Fuentes and SAFE community representatives.	Meeting notes on file.	
2/25/2015	Community Letter	In-person submittal at CWG meeting.	Submitted by Constance Saunders/jmap with notes	6/17/15 Community Open House thank you eblast
<b>February 23 - March 9, 2015: CHSRA CWG ROUND 1 (8 meetings, 259 in attendance)</b>				
2/23/2015	CHSRA CWG Round 1 Meeting	Community Working Group (CWG) Meeting held with Foothill communities at Sun Valley Community Church; 1 of 8 CWG meetings held.	Meeting notes on file.	
2/25/2015	CHSRA CWG Round 1 Meeting	CWG Meeting held with Sylmar community at Los Angeles Mission College; 1 of 8 CWG meetings held.	Meeting notes on file.	
2/26/2015	CHSRA Meeting	Small group meeting with SAFE representatives following CWG Round 1 meeting at William Eick's office.	Meeting notes on file.	
2/28/2015	CHSRA Presentation	Presentation to Communities Against Displacement coalition (Sylmar, San Fernando and Pacoima communities)	Meeting notes on file.	
3/5/2015	CHSRA Meeting	Small group meeting with SAFE representatives following CWG Round 1 meeting at Angeles National Golf Club (Oakmont).	Meeting notes on file.	
3/9/2015	CHSRA CWG Round 1 Meeting	CWG Meeting held with Sun Valley community at Sun Valley Library; 1 of 8 CWG meetings held.	Meeting notes on file.	
3/18/2015	CHSRA Meeting	Small group meeting with SAFE representatives following CWG Round 1 meeting at CHSRA office.	Meeting notes on file.	

**California High-Speed Rail Authority**  
**Palmdale to Burbank Project Section**  
**Foothills Communities Chronology of Events, Comments & Meetings**  
As of 7-13-16

DATE	ACTIVITY	SUBJECT	NOTES	CHSRA RESPONSE
3/26/2015	CHSRA Presentation	All-Spanish presentation to Pacoima Beautiful membership.	Meeting notes on file.	
<b>April 13-27, 2015: CHSRA CWG ROUND 2 (9 meetings, 239 in attendance)</b>				
4/14/2015	CHSRA CWG Round 2 Meeting	Community Working Group (CWG) Meeting held with Foothill communities at Sun Valley Community Church; 1 of 9 CWG meetings held.	Meeting notes on file.	
4/15/2015	Community Letter	High-Speed Rail Through Pacoima, data for your review	Submitted by Constance Saunders/graphic with notes	Receive and file.
4/16/2015	CHSRA CWG Round 2 Meeting	Community Working Group (CWG) Meeting held with Sylmar community at Tia Chucha's Centro Cultural; 1 of 9 CWG meetings held.	Meeting notes on file.	
4/20/2015	CHSRA CWG Round 2 Meeting	Community Working Group (CWG) Meeting held with Sun Valley community at Sun Valley Branch Library; 1 of 9 CWG meetings held.	Meeting notes on file.	
4/21/2015	CHSRA CWG Round 2 Meeting	Community Working Group (CWG) Meeting held with Pacoima community at Pacoima City Hall; 1 of 9 CWG meetings held.	Meeting notes on file.	
4/30/2015	CHSRA Meeting	Small group meeting with SAFE representatives following CWG Round 2 meeting at CHSRA office.	Meeting notes on file.	
5/14/2015	SAFE Email	Elimination of East Corridor Route E-2 from Further Consideration	FORM E-MAIL CAMPAIGN: More than 140 emails received with same message.	May 2015 E-2 EBlast
5/14/2015	SAFE Letter	Common Ground/Common Sense Recommendations for Discussion at Elected Official Briefing	Submitted by David DePinto/SAFE	5/21/15 Chairman Dan Richard letter.
5/14/2015	SHPOA Letter	Elimination of High-Speed Rail/Palmdale to Burbank Project Section E-2 Alternative Route	Submitted by William Eick/SHPOA. (This letter was submitted several times by William Eick.)	5/21/15 Chairman Dan Richard letter.
5/22/2015	CHSRA Tour & Meeting	Tour and small group meeting with CHSRA Board Member Katherine Perez-Estolano and SAFE & San Fernando community representatives.	Meeting notes on file.	
<b>May 16 - June 6, 2015: CHSRA OPEN HOUSES (9 meetings, 1,260 in attendance)</b>				
5/16/2014	CHSRA Open House Meeting	Held at Charles Maclay Middle School (Pacoima); one of nine Open House Meetings.	Meeting notes on file.	
5/19/2015	CHSRA Open House Meeting	Held at Sun Valley High School; one of nine Open House Meetings.	Meeting notes on file.	
5/27/2015	CHSRA Open House Meeting	Held at Olive Vista Middle School (Sylmar); one of nine Open House Meetings.	Meeting notes on file.	
5/30/2015	CHSRA Open House Meeting	Held at Verdugo Hills High School (Shadow Hills); one of nine Open House Meetings.	Meeting notes on file.	
6/1/2015	SAFE Email to Elected Representatives	URGENT - HSR Update & Request	Submitted by David DePinto/SAFE	6/8/15: Chairman Dan Richard sent a response to elected officials, staff, and community leaders in response to Mr. DePinto's points. CHSRA did not respond to Mr. DePinto's letter since it was not address to the Authority.

**California High-Speed Rail Authority**  
**Palmdale to Burbank Project Section**  
**Foothills Communities Chronology of Events, Comments & Meetings**  
As of 7-13-16

DATE	ACTIVITY	SUBJECT	NOTES	CHSRA RESPONSE
<b>June 9, 2015: CHSRA BOARD MEETING (300-400 people in attendance; 150 speakers)</b>				
7/21/2015	SAFE Email to Board and Staff/RDP	Storm Damage within Flood Plain in So Cal	Submitted by David DePinto	8/31/15: A note in CS indicates that G. Arellano are communication with this stakeholder; includes follow-up phone calls.
7/30/2015	Texts to DDP re: setting phone appointment.			
8/12/2015	Phone call w/ DDP re: overall Project Update.			
8/29/2015	SAFE E-Mail from DDP/SAFE	Upfront Water, Tunneling and Seismic Studies		9/3/15: Chairman Dan Richard acknowledge receipt and responded directly to DDP.
9/9/2015	CHSRA Tour & Meeting	Site visit and tour with SAFE community members.		
9/10/2015	Phone calls w/ DDP re: current Project Update; community meetings pending; request to schedule one-on-one field visit in Shadow Hills with Team.			
9/15/2015	SAFE Email to Senator Liu and Assembly Member Lopez, Liu and Wilk	Crisis-in-the-Making: Formal Request for San Fernando Valley Stakeholder Meeting	Submitted by David DePinto to Senator Liu and Assembly Member Lopez, Liu and Wilk.	9/16/15: CHSRA did not provide a response since the email was directed to elected officials.
9/24/2015	CHSRA Presentation to SFVCOG	SFVCOG considering position of support for HSR.	No decision made (SAFE in attendance); created Ad Hoc Committee.	Presentation to SFVCOG Board of Directors and public in attendance; ongoing review and refinement of alternatives per environmental process. Overview of early technical studies.
10/6/2015	Phone call w/ DDP re: project update and to schedule field visit on 10/14.			
10/14/2015	CHSRA Field Visit & Tour	Field visit and tour with SAFE community members (and horses) with new Project Team in Big Tujunga Wash adjacent to E2 alternative.	Meeting notes on file.	
10/26/2015	SAFE Email to Project Section	Burbank Station Option A	Submitted by Cindy Bloom/SAFE	10/29/15: Response sent
10/30/2015	SAFE E-Mail to Chairman and Staff	CHSRA Board Representation	E-Mail communication between DDP and Chairman Richard re: pending Board appointment.	10/30/15: Chairman Dan Richard communicated directly with DDP/SAFE by e-mail re: Board appointment.
11/2/2015	Phone call w/ DDP re: overall Project Update.			
	SAFE E-Mail from DDP/SAFE to CHSRA, elected offices and agencies			
11/9/2015		CHSRA Board Representation	DDP provided own update to the group on status of his communication with Governor's office re: Board appointment.	11/9/15: Text to DDP with update on LA Board meeting in early 2016 and follow-up on independent studies.



# California High-Speed Rail Authority

## Palmdale to Burbank Project Section

### Foothills Communities Chronology of Events, Comments & Meetings

As of 7-13-16

DATE	ACTIVITY	SUBJECT	NOTES	CHSRA RESPONSE
11/11/2015	DDP Text to Chairman Richard re: project status, community meetings, independent studies.			11/11/15: Text to DDP acknowledging receipt of DDP's text to Chairman Richard
11/13/2015	CHSRA E-Mail Response from Chairman Richard to DDP/SAFE following his texts and e-mails to Chairman.			11/13/15: Chairman Richard responding directly to DDP re: status of independent studies, protocol for communications and next steps.
11/18/2015	SAFE Email to Project Section	Insulting, Insensitive PR Blunder for High Speed Rail in Southern California	Submitted by David DePinto/SAFE	11/18/15: G. Arellano phone call w/ DDP re: current project status.
11/30/2015	SAFE E-Mail/Invitation from DDP/SAFE to Chairman Richard and staff		Invitation to Dec. 2 SAFE Community Meeting	11/30/15: Comprehensive e-mail response from Chairman Richard via e-mail directly to DDP; addressed independent studies, commitment to objective environmental review process, and redirect of DDP's communication to the Project Team.
<b>December 2, 2015: P-B E-BLAST - PROJECT SECTION UPDATE (sent to Project Stakeholder Database)</b>				
<b>December 2, 2015: SAFE COMMUNITY MEETING (50+ in attendance)</b>				
12/8/2015	Phone call w/ DDP re: debrief from SAFE Community Meeting; review project update and next steps.			
12/9/2015	SAFE E-Mail to Entire CHSRA Organization, including CEO, Regional Director and cc: KPE	URGENT - Burbank to Palmdale Project Section Failures. Our Communities 'Call to Action!	Submitted by David DePinto/SAFE	G. Arellano to follow-up.
1/5/2016	SAFE E-Mail to Chairman Richard, Board, and Project Staff	We Await Action from CHSRA	Submitted by David DePinto/SAFE	G. Arellano to follow-up.
1/7/2016	SAFE E-Mail to Project Team	Field Study: 1/6/16 Big Tujunga Wash, Mitigation Area and Haines Canyon Creek photos and video.	Submitted by David DePinto/SAFE. Mr. DePinto; submitted pictures and videos following early January storms.	1/7/16: G. Arellano sent Mr. DePinto a response email to confirm files were received.
1/11/2016	Email to Project Section	High Speed Rail and Equine Issue Report	Submitted by Susan Lustig/SAFE. Requested information on maps that were included in the MTI report.	1/12/16: G. Arellano sent a response email to Ms. Lustig.
1/11/2016	Email to Chairman Richard, Board, and Project Staff	Action Requested for January 2016 Board Meeting	Submitted by Dave DePinto/SAFE. Requested Chairman Richard to introduce specific motions or resolution on region's board representation and future action in response to the Dec. 8 2015 Submitted by Dave DePinto/SAFE. Forwarded a news article regarding a court ruling protecting the Santa Ana Sucker fish. Called for the removal of E2.	1/11/16: Text w/ DDP re: CHSRA Board meeting and his request for update.
1/13/2016	Email to Board, Staff and Consultants	PRESS ENTERPRISE: ENVIRONMENT: Supreme Court won't disturb protections for Santa Ana sucker fish		G. Arellano to follow-up.
1/27/2016	E-Mail update to DDP/SAFE following Legislative Hearing; pending phone communication.		Update re: Board appointments (Paskett and Lowenthal)	

# California High-Speed Rail Authority

## Palmdale to Burbank Project Section

### Foothills Communities Chronology of Events, Comments & Meetings

As of 7-13-16

DATE	ACTIVITY	SUBJECT	NOTES	CHSRA RESPONSE
1/28/2016	SAFE E-Mail to Chairman Richard, Board, and Project Staff	Testimony from Assembly Oversight Meeting	Submitted written testimony and photos of community events/efforts in the past; provided summary of issues of concerns, including compressed schedule, status of independent studies, funding and Board appointment.	
1/31/2016	Email to Authority staff	Question about Maps	Inquiry re: map used for Mineta Equine Report; C. Bloom also submitted a Public Records Act request on this topic.	2/10/16: G. Arellano sent a response e-mail to C. Bloom confirming receipt and PRA staff would be responding. 3/15/16: G. Arellano called C. Bloom to provide advance information on refined P-B project alternatives and clarify mapping inquiry.
2/2/2016	DDP Text to Chairman Richard re: PTE complaint (no advance notice of calls or letters)			2/2/16: G. Arellano phone call to D. DePinto explaining status of PTE calls, next steps.
<b>February 18, 2016: Announcement of Draft 2016 Business Plan</b>				
2/18/2016	Email to DDP re: release of 2016 Draft Business Plan	HSR Authority Releases Draft 2016 Business Plan, Solicits Public Comments		2/18/16 - 2/25/16: Communication w/ DDP to ensure receipt of 2016 Draft Business Plan.
2/24/2016	Follow-up email from S. Lustig (original sent 1/11/16)	High Speed Rail and Equine Issue Report	Follow-up e-mail to clarify maps that were used in the Mineta Equine Report.	3/15/16: Phone call to S. Lustig to clarify refined project alternatives and previous maps used for Mineta report.
2/26/2016	Email to Board, Staff and Consultants	E2 Fatal Flaw - Today's LA Times	Focus of e-mail was environmental concerns, specifically the Santa Ana Suckerfish, and repeated request to remove E2 as a "fatally flawed" alternative.	2/26/16: Forward communication to Project Team; ensure consideration.
3/14/2016	Email to Chairman Richard, M. Boehm and G. Arellano	Susan and Dale (Stedman)	E-mail shared serious health concerns of Mr. Stedman, who lives adjacent to E2 Alternative at Wentworth Avenue.	3/14/16: Called D. DePinto re: Mr. Stedman's health; confirmed his exclusion from any further PTE requests from the Authority.
3/15/2016	Phone call and e-mail to DDP re: SAA Report and refined alternatives	HSR Update	Authority placed multiple phone calls to key stakeholders in Foothill and other communities.	3/15/16: E-mail and phone communication with D. DePinto, S. Lustig and C. Bloom to ensure receipt of refined P-B project alternatives and review of announcement activity (presentation to SFVCOG on 3/17/16).
<b>March 17, 2016: Announcement of Refined P-B Project Alternatives, Presentation to SFVCOG</b>				
3/23/2016	Email to DDP re: PTE work resuming on public rights-of-way	Update	PTE activity for noise and paleontological work resuming in community area.	4/5/16: Phone message from G. Arellano to D. DePinto re: resumption of private property PTE activity.

**California High-Speed Rail Authority**  
**Palmdale to Burbank Project Section**  
**Foothills Communities Chronology of Events, Comments & Meetings**

As of 7-13-16

DATE	ACTIVITY	SUBJECT	NOTES	CHSRA RESPONSE
3/29/2016	Email to Chairman Richard, M. Boehm and G. Arellano	Status of Board Replacement for Northeast San Fernando		3/30/16: E-mail response from Chairman Richard to DDP clarifying Board appointment protocol.
4/10/2016	Email to G. Arellano	Public Comment Time at CHSRA Board Meeting		4/10/16: E-mail to DDP confirming public speaking protocol at Board meeting (up to two minutes per speaker).
4/11/2016	SHPOA Email to Authority	Shadow Hills Property Owners Association Response CHSRA 4/11 SAA Report	26-page response to 2016 SAA Report; prepared/submitted in advance of 4/12/16 Board Meeting.	4/11/16: G. Arellano acknowledged receipt.

# **ATTACHMENT 3**

## **UPDATE ON THE HIGH-SPEED RAIL, PALMDALE-BURBANK SECTION DEPARTMENTAL COMMENTS**

### **Department of Regional Planning (DRP)**

**Contact:** Max Thelander, (213) 974-6476, mthelander@planning.lacounty.gov

### **Comments on the Supplemental Alternatives Analysis (SAA) Report**

DRP staff reviewed the discussion and preliminary data on community and environmental impacts presented in the April 2016 SAA for the Palmdale - Burbank Section. In addition to information from the SAA, staff compared the alignments to the County's General Plan, Antelope Valley Area Plan and the Santa Clarita Valley Area Plan; and Significant Ecological Areas (SEAs), using GIS shapefiles provided by the High Speed Rail Authority (Authority).

### **General Concerns**

The following issues are potential concerns for all of the alignments:

- Physically divided communities
  - Road/trail connectivity
- Noise/vibration
  - Impacts on both humans and wildlife
- Hydrological impacts
  - Disruption of existing wells

### **Alignment-Specific Concerns**

Based on their analysis, staff has ranked the three alignments in order from fewest to greatest overall impacts, as follows:

1. Refined E1 (*least impacts*)
2. Refined E2
3. Refined SR-14 (*most impacts*)

Below is a summary of the most significant concerns specific to individual alignments. For more details, please reference Exhibit 1, which quantifies impacts in various areas of concern for each alignment using data from Appendix A of the SAA and from DRP's review.



The above-ground (non-tunnel) segments present the greatest risk of community and environmental impacts. For ease of reference, the above-ground segments have been numbered in the attached map (Exhibit 2), and the comments below refer to these segments by number.

#### Refined E1

##### *Environmental Issues*

- Segment 4 crosses Arrastre Creek, an important habitat area for the State and federally-endangered unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*).

#### Refined E2

##### *Environmental Issues*

- Segment 4 crosses Arrastre Creek, an important habitat area for the state and federally-endangered unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*).
- Segment 5 crosses the Big Tujunga Wash a short distance upstream from Hansen Dam, as discussed in the June 28, 2016 Board motion and July 1, 2016 5-signature letter to the Authority. Although it is in the City of Los Angeles, this area is included in the County-designated Tujunga Valley and Hansen Dam SEA. Approximately two miles to the east is a state reserve area for the State and federally-endangered slender-horned spinyflower (*Dodecahema leptoceras*).

##### *Community Issues*

- Segment 5 passes through a built-out residential neighborhood in Lakeview Terrace (City of Los Angeles), as is also discussed in the June 28, 2016 Board motion.

#### Refined SR-14

##### *Environmental Issues*

- Staff has concerns that Segments 7, 8, and 9 (in the vicinity of Escondido Canyon, Agua Dulce Canyon, and Bee Canyon) would impact wildlife movement and important habitat. Much of this area is included within the Santa Clara River SEA. Additionally, this area serves a critical north-south connection for wildlife movement between the two sections of Angeles National Forest which are bisected by SR-14. See the attached "Regional Habitat Linkages" map (Exhibit 3) and SEA descriptions from Appendix E of the County's General Plan (Exhibit 4), which includes the following excerpt:



*The Agua Dulce underpass of State Route-14 is an important crossing of the highway barrier for wildlife. From that point, north riparian areas exist where the creeks (Agua Dulce and Escondido) pass through Vasquez Rocks County Natural Area. The Agua Dulce Canyon extension was included in the SEA for its value as a wildlife corridor to provide connectivity across the Santa Clara River between the western and eastern highland areas of the San Gabriel Mountains. The extension includes the watershed of Bee Canyon, which is a downstream tributary of the Santa Clara River. Bee Canyon has an important population of the federally-endangered slender-horned spineflower (*Dodecahema leptoceras*) in its broad, floodplain area. In the Bee Canyon slopes of coastal sage chaparral, the federally-threatened coastal California gnatcatcher (*Polioptila californica californica*) is sometimes resident. The Bee Canyon area has some underpasses of the State Route-14 that could be used by smaller wildlife if maintained unclogged.*

*The Santa Clara River channel and its alluvial terraces and tributary creeks together form the single most important and natural wildlife movement zone through the County.*

Staff has concluded that due to the presence of federally-endangered species in this vicinity, as well the Santa Clara River's vital role as a regional wildlife corridor linking the Pacific coast to the San Gabriel Mountains and the Mojave Desert, environmental impacts associated with the Refined SR-14 alignment are important and should be avoided.

### *Community Issues*

- Segment 6 passes within 0.33 miles of Vasquez High School and within 2 miles of Acton.
- Segments 7 and 8 pass within 0.25 miles of Vasquez Rocks County Natural Area, and Segment 7 intersects the Pacific Crest Trail, both of which are heavily used recreational resources.
- Segments 7 and 8 pass also pass within 1.5 miles of Agua Dulce.
- Segment 9 passes within 0.33 miles of two approved subdivisions (Tentative Tract Maps 48086 and 060259), each of which authorize the creation of 492 single-family residential lots. Note that final maps must be approved and recorded before any development can proceed.

### Next Steps

As additional technical studies are completed and the alignments undergo further refinement, these above stated issues should be continuously kept in mind. Going forward, DRP staff will work with the CEO and other County departments to review future environmental documents for the Authority's project as they are released, in order

to ensure that community concerns are thoroughly addressed and environmental impacts are carefully documented and, to the extent possible, avoided or mitigated.

## **Comments on the Technical Studies**

### General Comments for all Three Studies

Staff from DRP reviewed the three reports cited below and provide the following comments.

The level of information provided in all three reports is very general and “broad-brush,” rather than specific and technical. There is very limited information on impacts or issues specific to the Palmdale-Burbank Section, and it appears that such information will not be available until the Draft Environmental Impact Report (EIR) is released in spring 2017 (per the Authority’s schedule).

### 1) Groundwater Study Review

The most pertinent information related to groundwater impacts can be found in the Conclusions section, and specifically the following points in Section 5.2, *Groundwater*:

1. In order to understand the groundwater resources within the San Gabriel Mountains the information from the new test wells will need to be analyzed.
2. Knowledge of groundwater within the Antelope Valley and San Fernando Valley groundwater basins is generally well known. However, groundwater information from the higher elevations of the San Gabriel Mountains is less known. Little to no monitoring wells exist at the higher elevations.
6. Impacts to the mountain front recharge due to tunneling operations may be very important to the lower lying groundwater basins. This water is calculated within the overall water budgets of the associated adjudicated groundwater basins.

Section 5.3, *Unresolved Issues for Future Research*, summarizes some of the next steps to gather additional technical data for areas where it is currently lacking, e.g. the San Gabriel Mountains.

Given the amount of attention that this issue has received, with the ongoing drought and the recent adjudication of the Antelope Valley groundwater basin, DRP recommends that Public Works review additional technical information as it becomes available, in order to assess potential impacts on water supplies and hydrology.

### 2) Trend Analysis of Long Tunnels Worldwide

This study reviewed literature on 67 long tunnels around the world, including eight High Speed Rail (HSR) tunnels that are longer than 20 miles. It concludes that tunnels of the

length proposed for the Palmdale-Burbank Section (up to 16 miles) are technically feasible. It also notes that a “double-tube, single-track” configuration is becoming the global standard, mainly due to safety requirements.

Going forward, DRP would be interested in whether particular tunnel boring methods are associated with greater or fewer surface and sub-surface impacts (e.g. hydrology, noise/vibration).

### 3) High-Speed Rail & Equine Issues

This study reviewed literature on the effects that noise from high-speed trains could have on horses. Despite conducting an extensive search, the study’s authors were only able to find a handful of studies on this topic, most of which focused on the effects of aircraft noise on wildlife, rather than train noise on domestic animals. They conclude that “the lack of an established body of research in this specific area seems to reflect a concomitant lack of problems between HSR systems and equines,” (pg. 1) however this conclusion is somewhat dubious, in the opinion of DRP staff.

#### *Potential Noise Levels and Impacts to Horses*

The study notes that “noise levels of 100 dBA...have the potential – at least in theory, as this is not documented -- to harm horses.” (pg. 1) The 100 dBA is based on guidelines established by the Federal Railroad Administration (FRA). (pg. 8) According to the study, “existing HSR European and Asian trainsets are generally known to produce SEL levels of between 83 and 91 dBA, meaning that they uniformly operate at below the 100-dBA threshold for possible impacts on animals (including horses),” (pg. 9). However, according to a fact sheet from the Authority (Exhibit 5), maximum noise levels from high-speed trains could be somewhat higher, approximately 82 dBA for a High-Speed Train @ 125 MPH, and 97 dBA @ 220 MPH (measured at a distance of 100 feet, before mitigation).

#### *Noise Onset Time and the “Startle Effect”*

According to the study: “The fact that HSR trains generally do not exceed the criteria suggested by the Federal Railroad Administration (FRA) (via Hanson et al) does not necessarily mean that the noise they generate won’t create problems for equines and equestrians. For humans, it is not so much the noise produced by the train they find annoying but its rapid onset rate. “Onset rate” refers to how quickly a loud noise is produced and is measured in decibels per second. When onset rates exceed 30 dB per second, “people tend to be startled, or surprised, by the sudden onset of the sound. FRA guidelines suggest that the potential “startle effect” be considered as “additional information” and not added to measurements of high-speed train noise.” (pg. 9)

The Authority’s fact sheet on noise notes that the duration of noise impacts from high-speed trains would be much shorter compared to traditional trains (4 seconds rather than 40). While this is touted as a benefit, it seems possible that this rapid onset could

exacerbate the “startle effect.” However, it should be emphasized that this is merely staff’s speculation, and should be assessed through further study and consultation with experts.

The study further notes that “horses tend to ‘habituate’ to the regularly repeated noises,” (pg. 2) although this statement appears to be based primarily on anecdotal observations rather than scientific study.

### *Maps*

Staff supports the study’s approach of mapping the locations of the proposed HSR alignments with equestrian trails and facilities, but believe the methodology needs to be improved as follows:

- Include proposed County trails, not only existing trails. (pg. 13)
- Conduct a more thorough survey of equestrian facilities. In this study, “usable data” were collected for only 10 of the 37 facilities identified through an Internet search. (pg. 13)
- Update the maps to show the latest proposed HSR alignments (from the April 2016 SAA).

Although it is difficult to reach any solid conclusions based on the limited information presented in these maps, potential areas of conflict (i.e. above-ground HSR segments in proximity to equestrian trails/facilities) include Acton and the Tujunga Wash/Hansen Dam areas.

### *Broader Context: Impacts to Wildlife*

In meetings with DRP’s staff biologist and the Authority’s consultants, one of the key concerns has been the potential impacts of noise and vibration (both from construction and operations) on wildlife. Therefore, staff recommends that the issue of equestrian impacts be considered within the broader context of impacts on animals, both wild and domestic.

### **Department of Public Works (DPW)**

**Contact:** John Walker, (626) 458-3900, [jwalker@dpw.lacounty.gov](mailto:jwalker@dpw.lacounty.gov)

### **Comments on the SAA Report**

DPW reviewed the SAA Report (April 2016) for the Palmdale - Burbank Section of the California HSR Project (Project) proposed by the Authority. This report amends the 2015 Alternative Analysis Report and reduces the proposed alignments to three alternatives.



The Palmdale - Burbank Section proposes to connect the Antelope Valley to the San Fernando Valley with stations in the cities of Palmdale and Burbank. The SAA Report studies three refined alignments (SR14 Refined, E1 Refined, and E2 Refined), each on fully grade-separated, dedicated tracks with tunneling through the San Gabriel Mountains. The SR14 Refined alignment generally follows State Route 14 northeast of the unincorporated County communities of Agua Dulce and Acton, with a tunnel between the City of Los Angeles and the County unincorporated communities. The E1 Refined and E2 Refined alignments tunnel through the San Gabriel Mountains between the cities of Palmdale and Burbank and the County unincorporated community of Acton.

### General Comments

1. The full extent of impacts to DPW and the Los Angeles County Flood Control District (District) infrastructure will be determined upon review of the project's Draft EIR.
2. The Draft EIR should disclose all impacts, permanent and temporary, that would occur within unincorporated County areas and District properties.
3. Detailed alignment maps, plans, and impact analyses, including but not limited to hydrology and traffic studies, should be submitted to DPW for review and included in the Draft EIR to adequately assess the impacts to County and District infrastructure.
4. The Draft EIR should identify impacts to wildlife habitat, particularly Angeles National Forest rivers, streams, and groundwater basins.
5. At various community meetings held to date, residents, particularly those of rural communities, have expressed concern over the impact of at-grade and elevated Project structures, potential eminent domain proceedings, and construction activities on rural lifestyle and natural habitats.

### Big Tujunga Wash Mitigation Area

During earlier reviews of the Project, the District commented on potential impacts of the E2 Refined Alignment on the Big Tujunga Wash Mitigation Area. Subsequent to County review of the 2015 Alternatives Analysis Report, the HSR Project team informed the District that the E2 Refined Alignment would avoid the Mitigation Area. However, Page 62 of the SAA Report states that the E2 Refined Alignment, "...would cross Foothill Boulevard, the I-210 freeway, and the Big Tujunga Wash Mitigation Area."

In late 1998, DPW purchased a 207-acre site in the Big Tujunga Wash to serve as mitigation for the District's projects throughout the County. The Big Tujunga Wash Mitigation Area contains sensitive fish and wildlife resources, including federally-

designated critical habitat for the Santa Ana sucker and the southwestern willow flycatcher. It is also a Conservation Easement, which does not allow for the type of development proposed in the Project. The Conservation Easement prohibits the District from issuing a permit or providing an easement through the Mitigation Area. Development of the Project within the Mitigation Area (which includes riparian ("stream") and non-riparian habitat) will result in a loss of the District's mitigation credits for the site, for which the Authority would have to compensate the District and meet the mitigation requirements of the State and federal agencies with regulatory authority over the Area.

The District would lose mitigation credits for the acreage it owns within the footprints that the State acquires for the permanent HSR right-of-way (for the structures and maintenance areas) and construction access and staging areas. In addition, if the HSR Project adversely impacts the habitat value of the District's property outside of the HSR's right-of-way and construction easements, the District could lose even more credits. The regulatory agencies will impose high penalties to compensate for the impacts to areas already being used for mitigation. Replacing mitigation credits is also very costly, and the regulatory agencies would have to allow using replacement credits for the District's project impacts. Based on other mitigation banks in the Southern California region, the going rate for riparian area credits is about \$200,000 per acre. DPW will not know how many acres are potentially impacted by HSR Project in the Big Tujunga Wash Mitigation Area or the estimated cost of the impacts until the impacts are specified in the Draft EIR.

It is our understanding from the California Department of Fish and Wildlife that their agency expressed similar concerns to the Project Team. It should be noted that the E2 Refined Alignment takes the greatest amount of designated critical habitat of the Santa Ana sucker and southwestern willow flycatcher (per Page 64 of the SAA Report). The Big Tujunga Wash above and below the Mitigation Area also contains federally-designated critical habitat for the Santa Ana sucker and the southwestern willow flycatcher.

### Water Resiliency

#### *San Fernando Groundwater Basin*

The District's Hansen Spreading Grounds is a facility that serves a vital role in recharging valuable water resources in the San Fernando Groundwater Basin. To promote water resiliency, the Governor, the State Water Resources Control Board, and the State Department of Water Resources are encouraging development and implementation of projects and operation of water facilities to maximize capture and reuse of locally generated water.

The SR14 Refined and E1 Refined Alignments appear to encroach into the Hansen Spreading Grounds (Grounds) with a potential loss of land and reduction in the size of the southerly recharge basins. Although the Grounds are clearly visible from the ground



and the air, the SAA Report makes no mention of the facility's existence or the Project's potential impacts to it.

The District has modified the Grounds to maximize groundwater recharge and is undertaking similar re-design of other spreading grounds in the San Fernando Basin. The City of Los Angeles is undertaking similar efforts in its nearby Tujunga Spreading Grounds. In addition, the City is undertaking a project to deliver recycled water to the Hansen Grounds that will increase groundwater recharge capability. There are no additional opportunities to offset the loss of acreage for groundwater recharge at these facilities. Even if vacant land is found, the geology downstream of the facilities is less conducive to recharge because of soil conditions. The District's and the City's plans to increase recharge of basins within the Grounds will create high groundwater conditions, which could impact the Project's construction and finished structures.

Overall, the SR14 Refined and E1 Refined Alignments would negatively impact the capture and distribution of groundwater and reduce the region's water resiliency and should be revised to avoid impacts to critical groundwater recharge facilities.

#### Pacoima Dam

The E1 Refined Alignment may tunnel under the dam. All structural, foundation, and/or geological impacts to the dam should be avoided. Both the 1971 San Fernando and 1994 Northridge earthquakes caused damage to the Pacoima Dam, requiring extensive repair work to the dam and stabilization of the abutment. A one-mile buffer zone between the tunnel and the dam and/or perimeter of the reservoir should be provided. See Exhibit 6 for location of the Pacoima Dam in relation to the alignments of the Project.

#### Water Quality, Greenways, Recreation

##### Pacoima Wash

A multi-use path for cyclists and pedestrians is being planned along the Pacoima Wash, and the Pacoima Vision Plan calls for a greenway corridor along the Wash. The alignments and design of the Project need to allow for the implementation and connectivity of these facilities.

##### Tujunga Wash

A pedestrian path is planned along the Tujunga Wash, and the Los Angeles River Master Plan calls for a greenway corridor along the Wash. The alignments and design of the Project need to allow for the implementation and connectivity of these facilities.

##### Santa Clara River Watershed

All three alignments mainly cross the natural or soft-bottom portions of the Santa Clara

River, Kentucky Springs Canyon, and Aliso Canyon, and could possibly impact some local drains.

### Transportation/Traffic

It appears that traffic impacts associated with grade crossings and stations were used as criteria in developing the alternatives. Consequently, DPW has no specific comments on the proposed alignments at this time. Any potential impacts to County intersections and roadways, including proposed road closures and traffic impacts around the stations such as the proposed Palmdale Transportation Center, should be disclosed and addressed in the Draft EIR.

The Project may result in vibration impacts to existing bridge and transportation structures during Project construction and future operations, which should be disclosed and analyzed in the Draft EIR.

### **Comments on the Technical Studies**

#### Trend Analysis of Long Tunnels Worldwide

DPW reviewed the summary conclusions of this report by the Mineta Transportation Institute. The report is a high-level analysis on the state of the art for construction and operation of long tunnels used for high-speed rail. The research for the report was limited to a review of available literature on long tunnels across the globe and comparison with the tunnels being considered for the Palmdale-to-Burbank HSR segment. Following are the high-level trends and insights from the report.

- The report examines 67 tunnels worldwide of 4.5 miles or more in length, including 32 high-speed railway (HSR) tunnels. Five HSR tunnels of the same length or longer than those proposed for the Palmdale-Burbank Section of the HSR have been successfully completed worldwide, and another six are currently under construction or in planning. Among the eleven longest HSR tunnels globally, five are longer than 30 miles and eight are longer than 20 miles. On this basis, the report concludes that HSR tunnels longer than 16 miles are considered feasible.
- In contrast with a single tunnel with double tracks, dual railway tunnels connected by cross passages with a parallel service or escape tunnel along with refuge areas were considered the safest design by many researchers, although they are the most expensive. Approximately 80 percent of the European HSR tunnels and 50 percent of tunnels in Asia use the dual tunnel configuration.
- The report compared tunneling methods - conventional tunneling by drilling and blasting versus tunnel boring machines (TBMs). The selection of tunneling methods depends on factors such as tunnel length and geological conditions. The conventional method is preferred for projects involving difficult and variable rock/soil



conditions and projects with a high risk of water inflow under high pressure. Construction of long tunnels will encounter a variety of rock/soil conditions. Therefore, the report recommends that the HSR tunnel projects employ a tunnel segmentation construction strategy to allow application of different excavation methods.

### Groundwater Study

DPW reviewed the conclusions of the Phase 1 Groundwater Study conducted by the California State University, Fullerton Department of Geological Sciences for the CAHSRA. The study pre-supposes interactions between tunneling activities for all of the alternatives and existing groundwater resources in the San Gabriel Mountain range and in the San Fernando Valley and Antelope Valley groundwater basins. The study develops a desktop level groundwater model of the interactions as a supplement to the detailed geologic/hydrogeological technical studies for the Draft EIR. Following are the high-level conclusions from the report.

- Several active and inactive geologic faults are present along the routes that may impact the flow of groundwater. The exact impacts are not presently known.
- Knowledge of groundwater within the Antelope Valley and San Fernando Valley groundwater basins is generally well known. Groundwater information from the San Gabriel Mountains is less known. Little to no monitoring wells exist at the higher mountain elevations. Information from new deep test wells within the San Gabriel Mountains will need to be analyzed to determine the contribution of groundwater from the mountains to the groundwater basins.
- The impacts of tunneling on the flow of groundwater from the San Gabriel Mountains to the Antelope Valley and San Fernando Valley groundwater basins need to be evaluated.

### **Department of Parks and Recreation (DPR)**

**Contact:** Jui Ing Chien, (213) 351-5129, [jchien@parks.lacounty.gov](mailto:jchien@parks.lacounty.gov)

### **Comments on the SAA Report**

DPR reviewed the SAA dated April 2016 of the Palmdale - Burbank Section of the HSR Project (Project) for potential impacts on the Department's facilities and the Project's impact on the Department's equestrian-related facilities. Previously, the Department submitted a response letter to the Authority on September 11, 2014 in response to a Notice of Preparation of an EIR (Exhibit 7). Below is a complete list of the Departmental facilities that may be impacted by the Project including six additional Departmental facilities (shown in *italic*) that were not listed in the letter previously submitted to the Authority dated September 11, 2014:

Park Name and Address

- Acton Park: 3751 Syracuse Avenue, Acton, CA 93510
- *Acton Wash Sanctuary*: Soledad Canyon Road and Gillespie Avenue, Acton, CA 93510
- *Dexter Park*: 11053 North Trail Road, Kagel Canyon, CA 91342
- *El Cariso Community Regional Park*: 13100 Hubbard Street, Sylmar, CA 91342
- *El Cariso Golf Course*: 13100 Eldridge Street, Sylmar, CA 91342
- Vasquez Rocks Natural Area: 10700 W. Escondido Canyon Road, Agua Dulce, CA 91350
- *Veterans Memorial Park*: 13000 Sayre Street, Sylmar, CA 91342
- Placerita Canyon Natural Area: 19152 Placerita Canyon Rd, Newhall, CA 91321
- *Tujunga Ponds Wildlife Sanctuary*: 210 Fwy & Wentworth Street, Tujunga, CA 91042

Trail Number and Facility Name

- 65 - Rim of the Valley Trail (Multi-jurisdictional/including County trail segments)
- 71 - Santa Clara River Trail (City of Santa Clarita and County)
- 78 - Placerita Creek Trail (State and County)
- 79 - Pacific Crest Trail (Federal Trail)
- 109 - Littlerock Trail (County and Federal)
- 110 - Palmdale Hills Trail (County)
- 114 - Acton Community Trail (County)

- 116 - Vasquez Loop Trail (County)
- Undesignated - Darrell Readmond Trail (County)
- *N/A - Courson Ranch Road Staging Area*

A map of the above parks and trails shown in relation to the HSR alignments can be found in Exhibit 8.

The potential impacts of the Project are detailed and explained below:

### Aesthetics

The proposed Project may degrade the quality of existing viewshed from the parks and trails listed above, which would affect park patron and trail user's experience, especially equestrians within the County's regional trail network and trail segments linked with other jurisdictions and trail systems. If the train is visible from the Vasquez Rocks Natural Area or the vicinity, there could be an impact on filming which has been conducted at Vasquez Rocks since the early 1900's. The HSR Authority should consider if it is technically feasible to fully tunnel the proposed alignment adjacent to Vasquez Rocks to avoid viewshed impacts, and require vegetative screening of the project site to create visual relief for the park patrons and trail users.

### Air Quality

The proposed activities associated with Project construction could result in fugitive dust, mobile emissions, and various stationary source emissions. Certain park patrons are especially vulnerable to the effects of air pollutants, including the elderly, children, persons with pre-existing respiratory or cardiovascular illness, athletes, and others who engage in frequent exercise.

### Noise

The proposed activities associated with Project construction could also result in increased noise levels adversely affecting sensitive receptors such as the elderly and children who use the park. Although construction noise is a temporary impact, mitigation measures should include scheduling construction to avoid peak use of the recreational facilities.

### Trails

The Department has requested continued collaboration with the FRA and the Authority, in the response letter to the Authority dated September 11, 2014, to address possible conflicts between the final rail alignment of the Palmdale - Burbank Section and the Department's proposed and existing trail alignments.



## Comments on the Technical Studies

DPR reviewed the "High-Speed Rail and Equine Issues" study prepared by the Mineta Transportation Institute dated December 2015. Below are the Department's comments:

- County trails are labeled in the legend as "Equestrians Allowed", "Equestrians Unknown" and "Equestrians Not Allowed" on the High-Speed Rail/Equestrian maps (Figures 1-7). Note that it is the policy of the Department that all County trails be multi-use (hiking, mountain biking, equestrian) wherever feasible, therefore these labels should be removed.
- Page 13 – The Department updated the trails shapefile in the LA County GIS Data Portal with a new trails shapefile, which contains data that was collected from July 2012 to February 2015. The maps in the study should be revised using the updated trails data, which is listed as "*Department of Parks and Recreation Trails (2015)*" in the County's GIS Portal. Two other shapefiles related to trails that may be added to the maps are: "*DPR Trail Access Points*" and "*Trail Staging Areas*".
- Page 13 – Although the "proposed" trails are not yet constructed or dedicated to the County, they are trail alignments that have been adopted by the Los Angeles County Board of Supervisors and may have been used by trail users historically. Trails with a "proposed" designation should stay on the map along with the existing trails.
- While the Department does not have any specifics related to the issue of horses being startled by the high-speed rail in our LA County Trails Manual, we sometimes refer to the U.S. Forest Service's Equestrian Design Guidebook (Guidebook) in these situations. A few relevant sections from the Guidebook and a separate document produced by the U.S. Department of Transportation, *Rails-with-Trails, Lessons Learned*, are shown below. The Authority may consider referencing these two documents in the equine issues analysis.

### Hearing

*Riding animals have excellent hearing, better than that of humans. Horse and mule ears rotate 180 degrees and generally face the direction the animal is looking. They can focus one eye and ear on the rider and one eye and ear on something else. When they hear something, horses and mules want to see the cause. Noise created by traffic, wind, and other distractions can greatly interfere with hearing, and cause many stock to become skittish. Stock ridden in more developed environments become accustomed to unsettling noises after repeated exposure to them. Vehicles backfiring, sonic booms, gunfire, firecrackers, sirens, helicopters, public address systems, hot air balloons, trains, marching bands, mechanical equipment, echoes, and bridge or tunnel sounds are tolerated by stock that are accustomed to them.*



*Horses and mules that spend time in rural areas get used to noises there, such as the sounds of farm animals or forest activities. However, all these sounds and many others can startle stock unfamiliar with them, making it difficult for riders to maintain control.*

### The Startle Factor

*What frightens horses and mules is not always obvious. Anything that moves suddenly or makes an unexpected noise can rouse an animal's survival instincts and prime it to bolt. This natural reaction--often referred to as a startle reflex--is the result of remarkably acute senses. [...] Horses and mules have excellent vision, hearing, and tactile senses. They are even capable of feeling vibrations through their hoofs, which often alert them to others long before the rider becomes aware. Horses and mules need a comfortable operating space. When they can see something suspicious from afar, they can more easily evaluate the danger and react accordingly. There is a fine line between what is comfortable for horses and mules and what seems dangerous. In addition to confined spaces and predators, things that can startle a horse or mule include: Loud or unexpected noises--Buzzing model airplanes, exploding firecrackers, batting practice, or a falling tree.*

Hancock, J. (2007). *Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds*. Missoula, MT: USDA, Forest Service, Technology and Development Program.

### Equestrian Considerations

*Lack of equestrian experience near railroads, horses' instinctual flight behavior, and equestrians' general wariness of new and potentially challenging situations require specific design considerations when planning for equestrian use on Rails-with-Trails (RWTs). All RWTs with potential equestrian use require site-specific analysis. Some equestrian users advocate fences of sufficient height to prevent horses jumping them when startled or frightened; however, this concern must be balanced with the need for visibility of trains for both horses and riders. Horses that cannot see an oncoming or approaching train will experience greater fear and confusion than if they are able to see and identify the source of noise. Equestrian use should not be promoted where barriers create a narrow trail environment.*

Alta Planning Design (2002). *Rails-with-Trails, Lessons Learned: Literature Review, Current Practices, Conclusions*. Washington, DC: U.S. Dept. of Transportation.

### **Public Library**

**Contact:** Elsa Muñoz, (562) 940-8450, emunoz@library.lacounty.gov

The project site is located within the Library Planning Area 1 - Santa Clarita Valley and Library Planning Area 3 - West San Gabriel Valley. The nearest libraries to the Project

are the Acton Agua Dulce Library (0.5 mile) and San Fernando Library (less than 0.5 mile). Lancaster Library, Quartz Hill Library, La Crescenta Library, and La Cañada Flintridge Library are also within 10 miles radius from the project (see attachment).

The Public Library currently cannot quantify the impact of the physical environmental conditions in the vicinity of the project such as noise and pollution. Once the Draft EIR is released, the Public Library will determine if there are any potential impacts considering the distances of the HSR to the libraries.

**Department of Public Health – Environmental Health (DPH-EH)**

**Contact:** Aura Wong, (626) 430-5130, [auwong@ph.lacounty.gov](mailto:auwong@ph.lacounty.gov)

The potential impacts on County services provided by the DPH-EH include:

- Disruption of rodent population indigent in the area may result in complaints originating from the construction site.
- Potential mosquito breeding (West Nile/Zika Virus) as a result of stagnant water from the construction site.
- Attraction of mobile food preparation vehicles and vendors in the area, which may result in unpermitted and illegal food vending, as well as improper disposal of liquid and solid waste.
- New commissaries will be needed to accommodate the influx of servicing additional mobile food facilities.

**Air Quality**

Temporary Impacts:

- Construction of the rail line and associated structures/roads may result in short-term degradation of air quality due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Construction dust emissions may also increase the potential for Valley Fever (fungal spore: *Coccidioides immitus*).
- Emissions from construction equipment during construction of the project are anticipated and would include carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOCs), ozone (O<sub>3</sub>), directly-emitted particulate matter (particulate matter less than 10 and 2.5 microns in size [PM<sub>10</sub> and PM<sub>2.5</sub>, respectively]), and toxic air contaminants (TACs) such as diesel particulate matter plus diesel exhaust organic gases (diesel PM).
- Nuisance odors in the immediate area resulting from activities such as paving, and other construction related activities.

- Although the air quality impacts are temporary, the construction may take several years to complete.
- Dust mitigation measures that depend on water, may not be sufficient due to the shortage of water in the upper desert areas. The importation/transportation of water by water trucks may result in additional air and noise impacts on the communities closest to the project.
- Naturally occurring hazardous substances that may be disturbed include Radon gas and asbestos fibers.

Long Term Impacts:

- Changes in traffic patterns either locally or regionally would impact air quality. The DEIR would analyze such impacts as there may be positive and negative impacts associated with such a project.
- The terminal centers in Burbank and Palmdale have the potential to impact air quality locally as new activity involving transportation, supporting industries, etc. take effect. There is a potential for “hot-spots” in these areas as a result of new activity impacting nearby sensitive receptors.

Noise

- Temporary noise and vibration impacts from construction traffic and activity may occur and must be analyzed in the DEIR. In addition, short-term ground-borne noise and vibration effects from tunnel boring construction activity may occur. The sensitive receptors or communities near the construction activity would be potentially most adversely impacted. The construction phase of the project may take several years to complete.
- Potential long-term noise impacts may involve those communities near the terminus centers as they may be adversely impacted with possible increases in ambient noise levels. The impact of noise and vibration from the train route on communities must be analyzed in the DEIR.
- Changes in traffic patterns either locally or regionally may impact ambient noise levels. The DEIR would analyze such impacts as there may be positive and negative impacts associated with such a project.
- The placement of emergency systems, power boxes, and other electrical equipment associated with the operational phase of the project could also result in additional noise impacts.
- An increment of 3dBA above the current baseline may result in the rising of the



background noise in affected communities.

- Noise barriers need to be incorporated in the noise abatement plan. The California Department of Transportation and HSR Authority oversee the placement of the noise barriers.

**Consolidated Fire Protection District (Fire Department)**

**Contact:** Debbie Aguirre, (323) 881-2404, [debbie.aguirre@fire.lacounty.gov](mailto:debbie.aguirre@fire.lacounty.gov)

**Comments on the SAA Report**

**Land Development Unit**

1. The proposed project may necessitate multiple ingress/egress access for the circulation of traffic and emergency response issues.
2. When a bridge is required to be used as part of a fire access road, it must be constructed and maintained in accordance with nationally recognized standards and designed for a live load sufficient to carry a minimum of 75,000 pounds. All water crossing designs are required to be approved by DPW prior to installation.
3. All access devices and gates must comply with California Code of Regulations, Title 19, Articles 3.05 and 3.16.
4. Three sets of alternate route (detour) plans must be provided, with a tentative schedule of planned closures, prior to the beginning of construction. Complete architectural/structural plans are not necessary.
5. The nearest County of Los Angeles Fire Department Fire Stations must be notified at least three days in advance of any street closures that may affect Fire/Paramedic responses in the area.
6. Disruptions to water service must be coordinated with the Fire Department and alternate water sources must be provided for fire protection during such disruptions.
7. When developing the infrastructure and when actual construction is proposed, the following requirements must be incorporated into the project proposals:
  - a. Proposals for all street vacations (closures) must be reviewed and approved by the Fire Department, Land Development Unit.
  - b. Three sets of water plans must be submitted to the Fire Department, Land Development Unit, which show all proposed changes to the fire protection water system, such as fire hydrant locations and main sizes.

8. The Fire Department, Land Development Unit's comments are general requirements. Specific fire and life safety requirements will be addressed at the building and fire plan check phase. There may be additional requirements at that time.

#### Forestry Division – Other Environmental Concerns

The statutory responsibilities of the Fire Department, Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources, and the County Oak Tree Ordinance.

Under the Los Angeles County Oak Tree Ordinance, a permit is required to cut, destroy, remove, relocate, inflict damage or encroach into the protected zone of any tree of the Oak genus which is 25 inches or more in circumference (eight inches in diameter), as measured 4 1/2 feet above mean natural grade. However, this project may not be subject to this ordinance because the Government Code Section 65402 provides certain exemptions when the project applicant is a public agency. Regardless of whether or not the HSR is exempt from the Oak Tree Ordinance, CEQA specifically requires that impacts to oak tree woodlands be analyzed in the DEIR and, if necessary, mitigated.

This property is located within the area described by the Forester and Fire Warden as a Very High Fire Hazard Severity Zone or Fire Zone 4. The development of this project must comply with all Very High Fire Hazard Severity Zone code and ordinance requirements for fuel modification. A fuel management/modification and fire hazard reduction plan should be developed and implemented prior to construction.

#### Fire Prevention Division

A long rail tunnel system will present significant fire and rescue challenges for emergency response agencies. While the occurrence of tunnel fires is rare, they can be catastrophic. According to the attached report from SCOR Global Property & Casualty: "177 tunnel events have been recorded in 29 countries worldwide since 1866. Of these 177 tunnel events, 28 major fire events were recorded between 1949 and 2008, resulting in more than 700 deaths, more than 1,000 people injured, the loss of more than 500 vehicles (including cars, trucks and trains) and financial loss of more than 1 billion Euros."

A fire in the 550-foot long Newhall Pass Freeway Tunnel in October 2007 resulted in three deaths, destruction of 30 commercial vehicles and \$11 million in damage.

Specific fire service challenges in tunnels include:

- Access
- Rescue



- Evacuation
- Fire suppression
- Smoke Control
- Water
- Emergency Power

Even a medical emergency in a tunnel will present logistical challenges due to accessibility.

The Office of State Fire Marshal (OSFM) is the authority having jurisdiction over the fire and life-safety issues for the HSR project. The OSFM is working to establish statewide standards, but they will also ensure that local operational needs/considerations are taken into account. Any deviation from the State fire code or standards as an alternate means to attain fire and life safety objectives will require approval from OSFM. The National Fire Protection Association (NFPA) Standard 130 “Fixed Guideway Transit and Passenger Rail Systems” is the basis for the fire and life safety strategy to be employed in the design and operation of the HSR Project.

Regarding local operational needs in the proposed long tunnel infrastructure, the Fire Department will be contacting and working with the OSFM.

### **Comments on the Technical Studies**

#### Groundwater Study Review

All alignment and station alternatives traverse seismic fault lines.

#### Trend Analysis of Long Tunnels Worldwide

- Emergency operations, refuge areas, distances and tunnel configurations are briefly addressed in the report and will be considerations for additional comments upon review of the Draft EIR.
- A fire-life safety assessment conducted by a fire-safety specialty organization will be required, as per Fire Code Section 104.7.2.
- The tunnel configuration consisting of two railway tunnels with a parallel service or escape tunnel seems to be the safest option.

# **EXHIBIT 1**

California High Speed Rail Palmdale - Burbank Project Section Alignment-Specific Impacts				
Category	Impact Area	Refined SR-14	Refined E1	Refined E2
Community	Land Use Conflicts	Vasquez Rocks Pacific Crest Trail  Acton Agua Dulce		Tujunga Wash
Community	Displacements (non-tunnel)	6 multi-family res. (MFR) 87 single-family res. (SFR)  137 commercial parcels (COM) 173 industrial parcels (IND)	9 MFR 79 SFR  137 COM 169 IND	8 MFR 92 SFR  118 COM 170 IND
Community	Noise/Vibration (residences within 2500' of c/l)	14,328	14,324	14,178
Community	Schools (within 1500' of c/l) (non-tunnel only)	9	9	8
Community	Visible Alignment Length (mi.) (non-tunnel)	20.0	19.1	14.5
Community	EJ - Minority % (pop. within 0.5 mi. of c/l) (non-tunnel only)	66%	66%	61%
Community	EJ - Elderly %	10%	10%	11%
Community	EJ - Limited English %	18%	18%	16%
Community	EJ - Poverty %	20%	20%	20%
Environment	Archaeological Sites (within 100' of c/l)	21	12	12
Environment	Historic Architectural Resources (within 150' of c/l)	28	21	22
Environment	Parklands (acres, within 100' of c/l)	<u>Tunnel</u> 134.3 - Angeles Natl Forest (NF) 55.6 - SG Natl Monument (NM)  <u>Non-Tunnel</u> 11.1 NF 11.1 NM	<u>Tunnel</u> 365.9 - NF 157.6 - NM  <u>Non-Tunnel</u> none	<u>Tunnel</u> 363.9 - NF 162.7 - NM  <u>Non-Tunnel</u> 11.1 - Hansen Dam Open Space
Environment	Critical Habitat (species, acres, within 1000' of c/l) (non-tunnel only)	Arroyo Toad - 64	none	Santa Ana Sucker - 80 Southern Willow Flycatcher - 84
Environment	Wetland Habitat (acres, within 250' of c/l) (non-tunnel only)	12.1	7.9	26.7
Environment	Alignment Length within 100-yr. floodplains (mi.) (non-tunnel only)	2.48	2.44	2.83
Environment	Alignment Length within 1 mi. of perennial streams (mi.) (non-tunnel only)	1.65	1.01	2.09
Environment	Alignment Length within Very High Fire Hazard Severity Zones (mi.) (non-tunnel only)	6.7	6.45	6.41
Environment	Alignment Length within Significant Ecological Areas (SEAs) (mi.)	<u>Tunnel</u> 3.43  <u>Non-Tunnel</u> 3.67	<u>Tunnel</u> 4.14  <u>Non-Tunnel</u> 2.18	<u>Tunnel</u> 4.14  <u>Non-Tunnel</u> 2.35
Project	Capital Costs (excluding ROW)	1.09	1.17	1.03
Project	Travel Time	+1:03	+0:18	+0:17

**California High Speed Rail Palmdale - Burbank Project Section  
Alignment Length within Significant Ecological Areas (SEAs)**

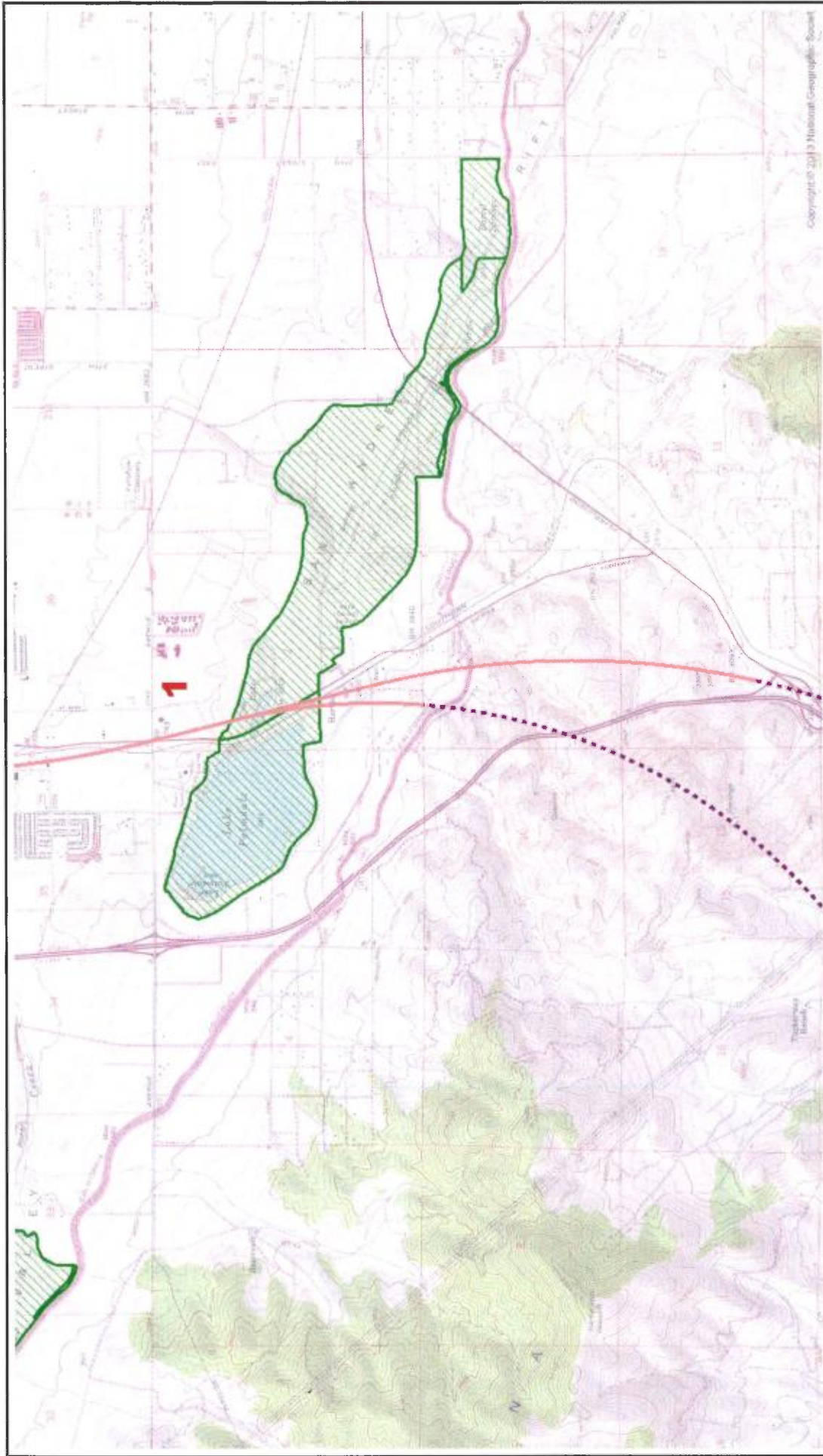
	Refined SR-14		Refined E1		Refined E2	
	TUNNEL	NON-TUNNEL	TUNNEL	NON-TUNNEL	TUNNEL	NON-TUNNEL
Total Alignment Length within Significant Ecological Areas (SEAs) (mi.)	3.43	3.67	4.14	2.18	4.14	2.35
<u>SEA</u>						
San Andreas	0	0.45	0	0.45	0	0.45
Santa Clara River	3.43	2.94	4.14	1.45	4.14	1.45
Tujunga Valley / Hansen Dam	0	0.28	0	0.28	0	0.45

# **EXHIBIT 2**









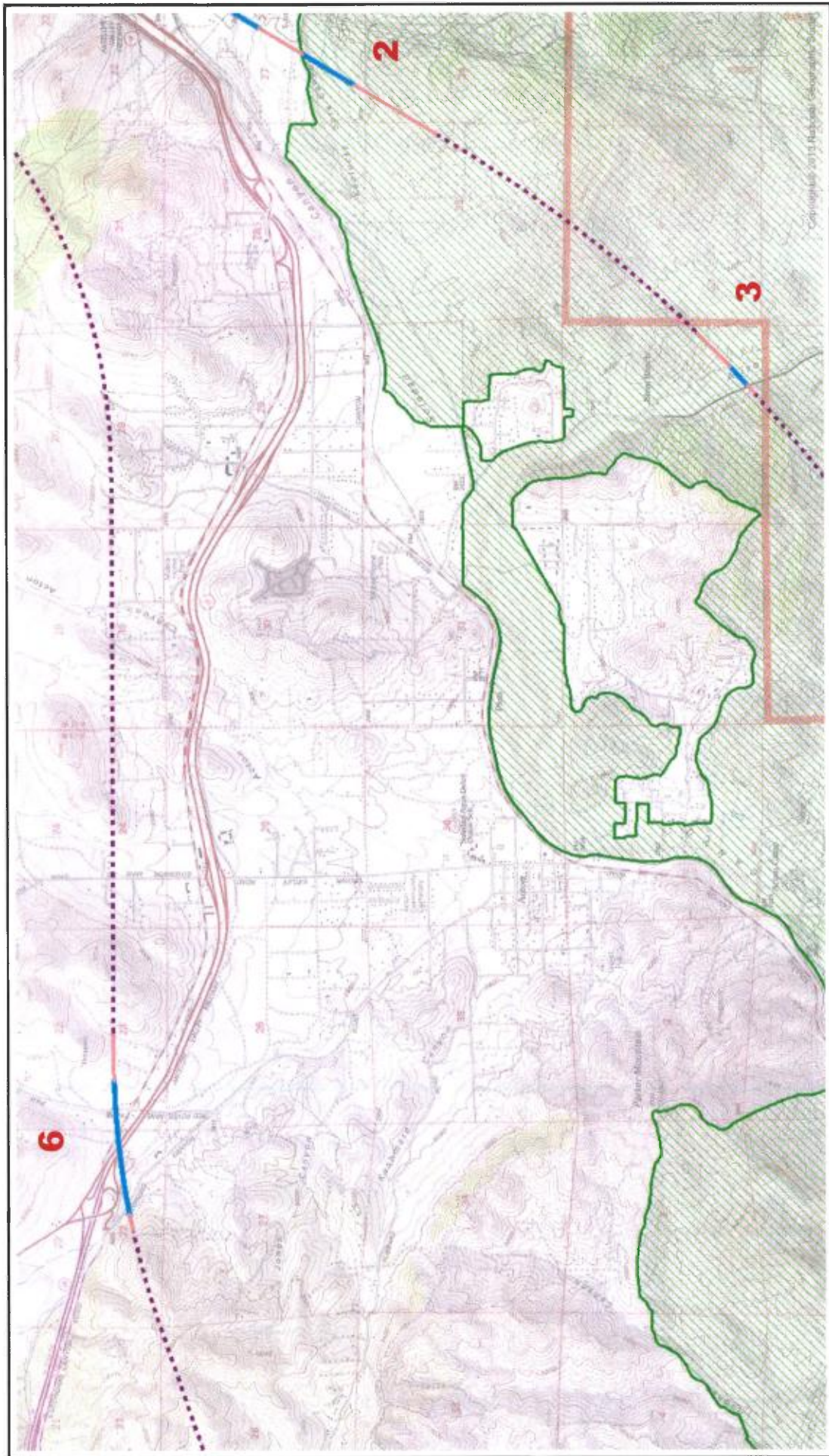
# Lake Palmdale - segment 1 HSR Palmdale-Burbank

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## Acton - segments 2, 3, 6

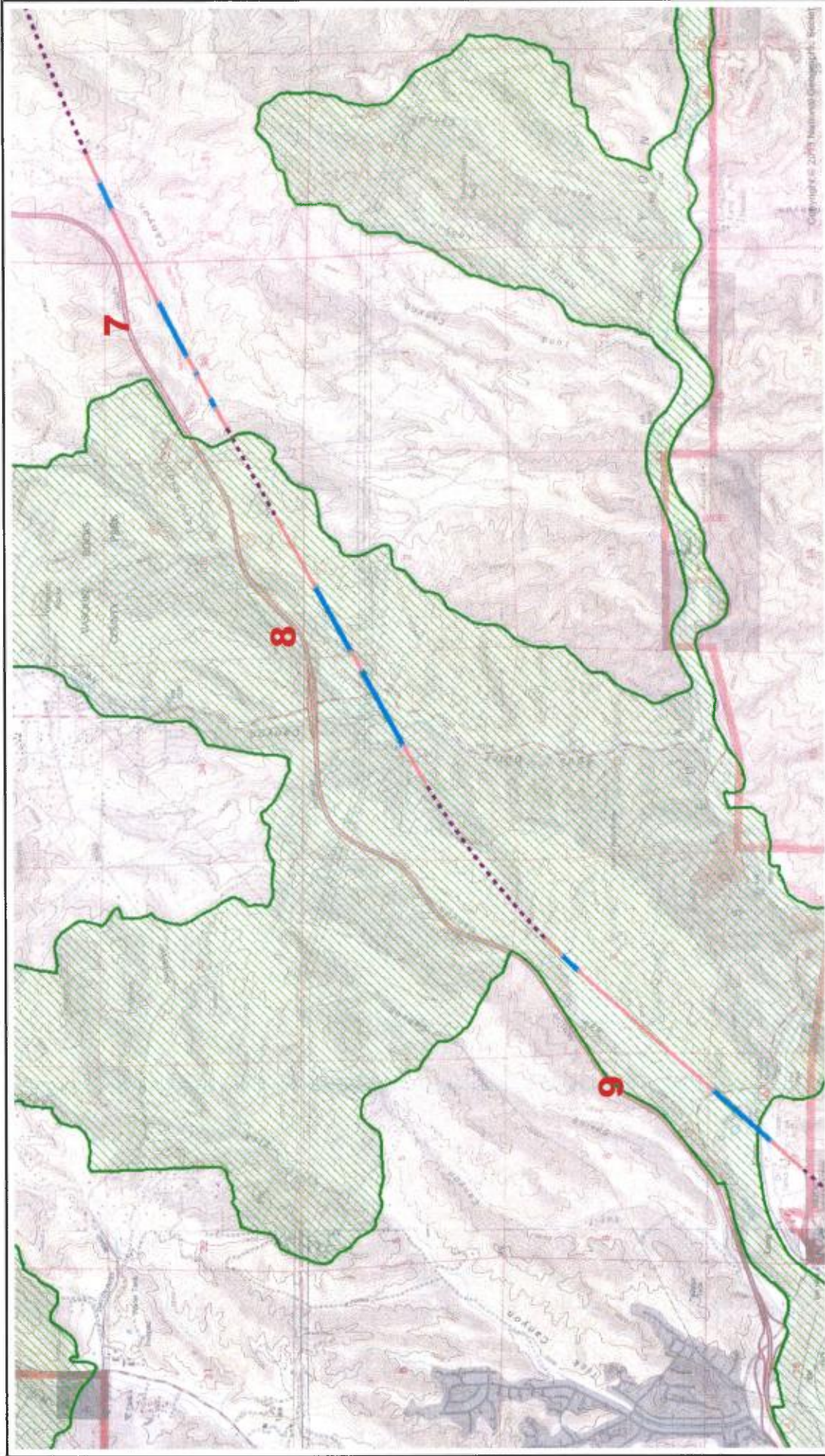
### HSR Palmdale-Burbank

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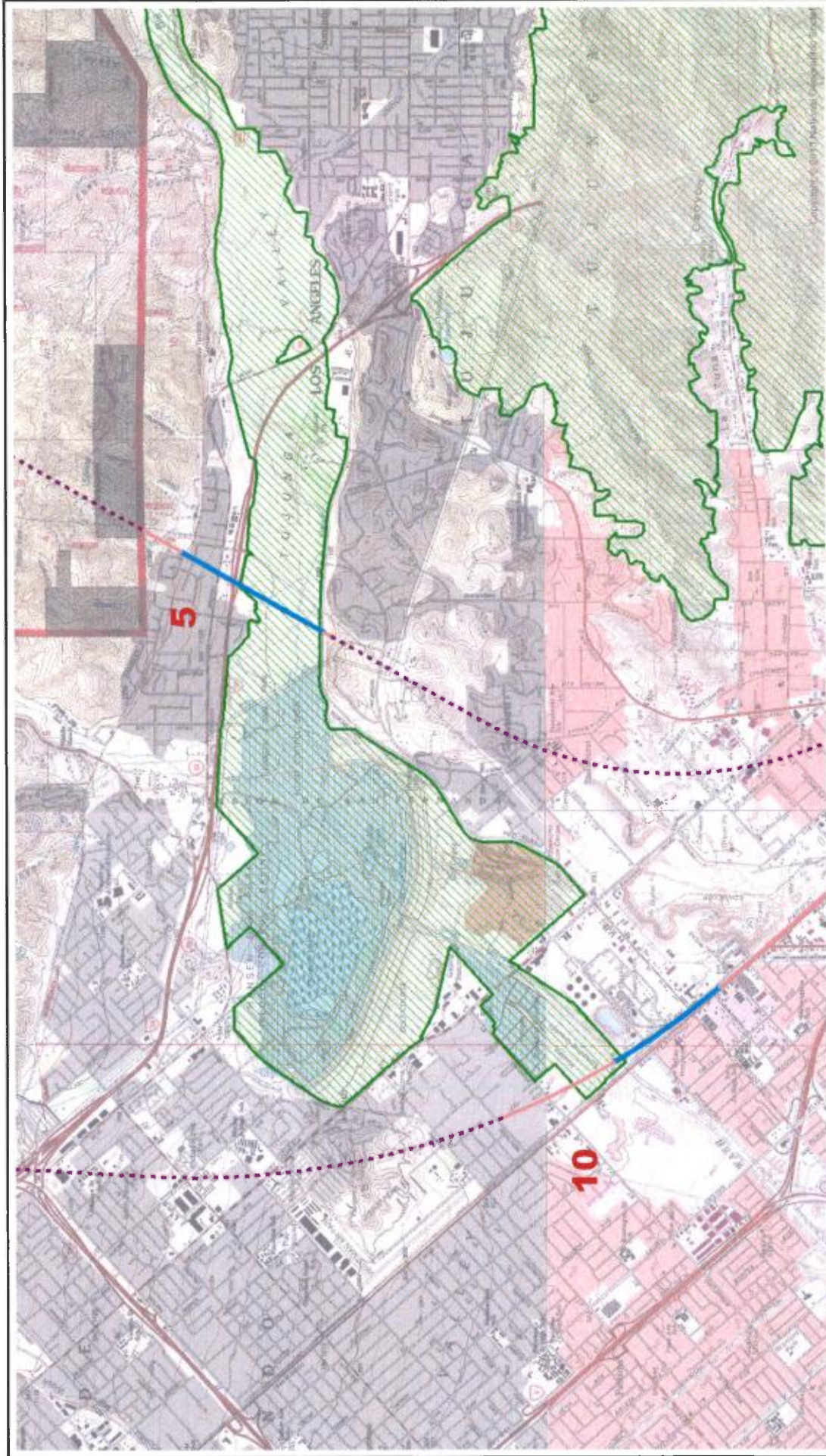
# Vasquez Rocks - segments 7, 8, 9 HSR Palmdale-Burbank

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# Tujunga Wash - segments 5, 10 HSR Palmdale-Burbank

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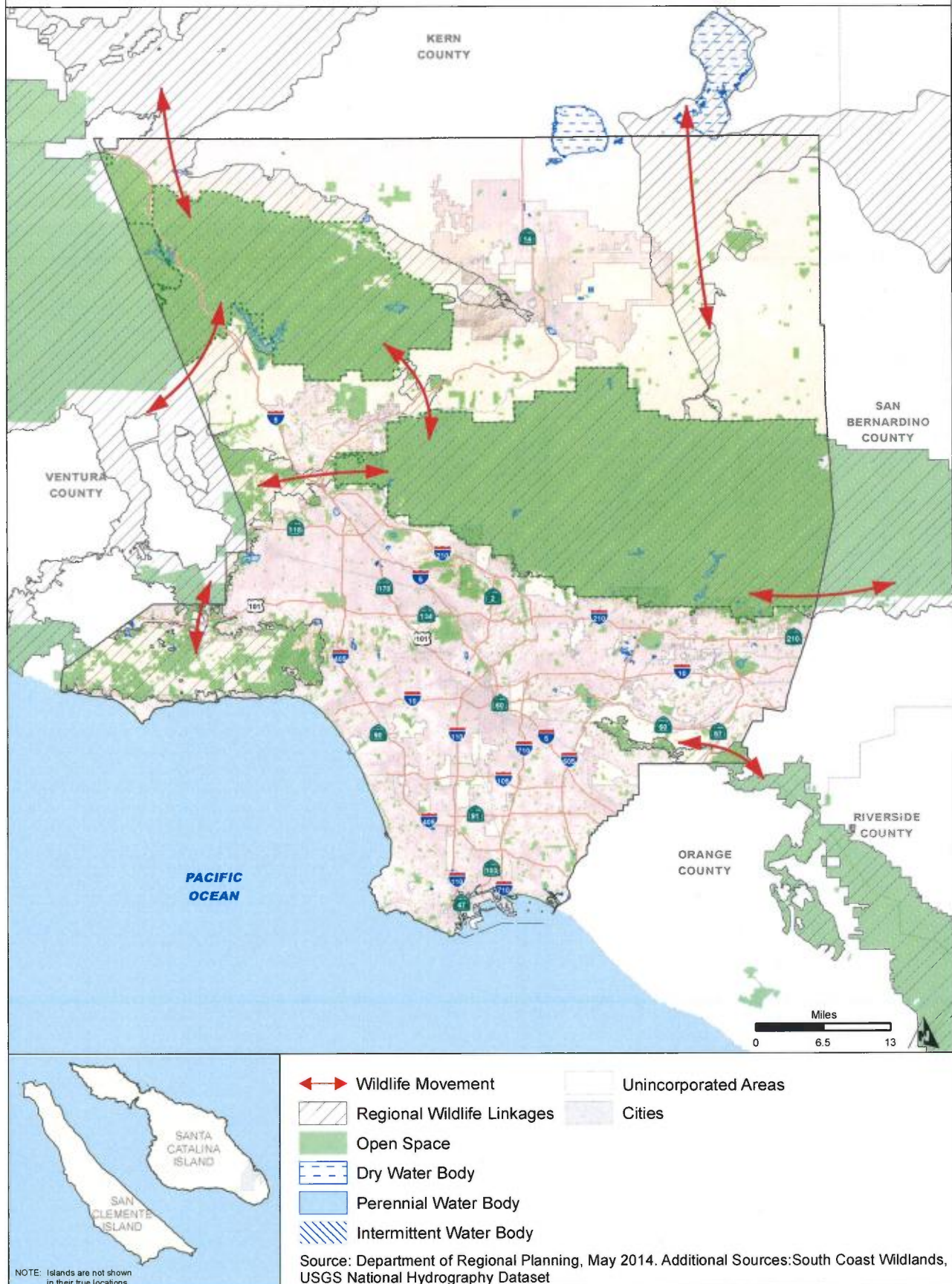




# **EXHIBIT 3**

# Regional Habitat Linkages

Figure 9.2



# **EXHIBIT 4**

## Excerpts From Los Angeles General Plan, Appendix E

**III. Regional Habitat Linkages**

Habitat linkages are defined as area within the overall range of a species or suite of species that possess sufficient cover, food, forage, water and other essential elements to serve as a movement pathway, or between two or more larger areas of habitat. Depending on the species, linkages vary in size. For example, a belt of coastal sage scrub traversing a golf course, connecting sage scrub habitat areas on either side, providing a safe passage zone for smaller, slower-moving species (such as lizards and rodents) to maintain population<sup>1</sup> connectivity between the two sides of the golf course is one form of habitat linkage.

Wildlife corridors, which are areas of open space of sufficient width to permit larger, mobile species (such as foxes, bobcats and coyote) to pass between larger areas of open space, or to disperse from one major open space region to another, are another type of habitat linkage. Such areas are generally several hundred feet wide, unobstructed, and usually possess cover, food and water. The upland margins of a creek channel, open ridgelines, open valleys or the bottoms of drainages often serve as major corridors locally, as do riparian alignments.

Biological resources are important in a regional context, serving to connect resources in adjacent local jurisdictions. Critical biological resources are maintained through habitat connectivity, which sustains population genetic diversity, and provides refuge for migrant species. Regional habitat linkages are identified in the Conservation and Natural Resources Element. The Antelope Valley, Puente Hills, San Andreas, Santa Clara River, Santa Felicia, Santa Monica Mountains, and Santa Susana Mountains and Simi Hills SEAs serve as important regional habitat linkages. More details about linkages between and within each of these SEAs are provided below:

**Antelope Valley SEA**

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<sup>1</sup> In population biological terms, a "population" is the group of individuals of any species that may interact or interbreed with each other. Thus, many groups of organisms within Los Angeles County may belong to populations that extend far beyond county borders. Nevertheless, populations are typically structured (often because of intervening unsuitable habitat areas) so that individuals are much more likely to interact with other nearby individuals in what may be termed sub-populations or "demes." However, rather than detracting from the scope of the SEA descriptions by detailing a long discussion of the technicalities of population biology, and to benefit readability for the lay reader, the County has chosen to use the term "population" in a broad colloquial sense throughout this document. Thus, in this document the term "population" may often refer to demes, but the intention is to refer to groups of individuals that interact in an ecologically meaningful ways on a regular basis.



The SEA extends from the Angeles National Forest to the playa lakes within Edwards Air Force Base, encompassing most of the two largest drainages exiting the northern slope of the San Gabriel Mountain range. The geographical features of the SEA serve as a major habitat linkage and movement corridor for all wildlife species within its vicinity and, in an intergenerational sense, many of the plant species. Ecologically generalist species (such as mountain lion, bobcat, coyote, gray fox,) have the ability to move across such vast areas and through changing habitat types. For such species, the SEA may serve as an important system for long-term and genetic exchange among populations. For smaller or less-mobile species or taxa, which are narrowly restricted in their habitat needs, the SEA can serve as a broad linkage zone, in which individual movement can take place during seasonal population dispersal or over generations. This provides essential genetic exchange within and between metapopulations. The two drainages, combined with the upland terrestrial Desert-Montane transect portion of the SEA, ensure linkage and direct movement areas for all of the wildlife species present within the County portion of the Antelope Valley.

### **Puente Hills SEA**

Evidence of significant wildlife movement throughout the Puente Hills SEA was documented in a two-year carnivore study commissioned by the Santa Monica Mountains Conservancy as part of a multi-jurisdictional effort to establish a regionwide wildlife movement linkage. Additional studies on wildlife movement through the area include several focusing on the Harbor Boulevard and Colima Road Underpasses. These studies can be accessed at the following link: <http://www.habitatauthority.org/studies>. This SEA represents the County portion of a continuous series of natural open space within the Puente Hills and Chino Hills. Overall, this open space extends north and west from State Route-91 in Orange and Riverside counties to the Whittier Narrows reach of the San Gabriel River. The Puente and Chino Hills are a natural, physical link between the Santa Ana Mountains and the San Gabriel River. The San Gabriel River flows from and links to the San Gabriel Mountains. By virtue of these linkages and a complex of interconnected habitat units, the Puente and Chino Hills function as both an important wildlife linkage and resident habitat area for regional wildlife populations.

### **San Andreas SEA**

The SEA includes several important linkages for wildlife movement. The foothills in the western-most part of the SEA are an important linkage between the San Gabriel Mountains, the Tehachapi Mountains, and the Coastal Ranges. The linkage to the Tehachapi Mountains is important because the Tehachapis connect to the southern-most extent of the Sierra Nevada Mountains. The Tehachapi Mountains represent the only mountain linkage from the Transverse Ranges and the Coast Ranges to the Sierra Nevada Range. This feature may be an important topographic reference for migrating birds, and provides high elevation foraging grounds along the migratory route. The several ranges that meet at the western end of the SEA provide a valuable link for gene flow between divergent subspecies, varieties, and populations of many species. The SEA includes numerous drainages that extend onto the Antelope Valley floor towards resources such as the Fairmont and Antelope buttes. These washes provide an important linkage for animals traveling between the Valley floor, the buttes and the western part of the San Gabriel Mountains. In addition, Anaverde Creek, Amargosa Creek, and Pine Canyon facilitate east-west wildlife movement through the mountains, Portal Ridge, and Ritter Ridge. Tributary drainages from the Santa Clara River, such as Elizabeth Lake Canyon and San Francisquito Canyon, connect coastal drainages and the coastal ecoregion to the San Andreas Fault and interior watersheds. The frequency of valuable riparian communities along this travel route, which is located within an otherwise arid climate, further contributes to the SEA's importance for wildlife and habitat linkages in the region.

### **Santa Clara River SEA**

Historically (and prehistorically) the riparian corridor along the Santa Clara River has served as the primary east-west linkage between the Pacific coastline, Coast Ranges, interior ranges, high desert and southern Sierra (via the Tehachapi Range). Animals moving through the Santa Clara River at one time had unobstructed passage along the river and within its tributaries. The present configuration of the tributary drainages has reduced connectivity from the Santa Clarita Valley to the north, but the Santa Clara River remains relatively intact and open. The SEA embraces the river corridor and the linkage zones that are considered essential to ensuring connectivity and resource values within the historic movement zones for all of the wildlife species present within the County portion of the Santa Clara River.

### **Santa Felicia SEA**

Historically, riparian corridors have served as linkages between the Pacific coastline, Coast Ranges, interior ranges, the high desert and southern Sierras (via the Tehachapi Range). The Santa Felicia stream corridor likely serves the functions today. The elevation in this area is lower than that of the Los Padres National Forest, to the north, which facilitates animal movement within the riparian systems between Piru Lake in Ventura County and the San Gabriel Mountain Range in the County. The tributary drainages for Santa Felicia Creek within this SEA remain intact and unobstructed.

### **Santa Monica Mountains SEA**

Although wildlife movement is hampered by rural development in the SEA, animals are still able to move through the Santa Monica Mountains in many areas. Due to its large size and topographic complexity, many linkages are certain to occur within the SEA at various bottlenecks. These linkages allow movement between large open space areas within the SEA, as well as between areas outside the SEA, such as the Simi Hills and the western extent of the Santa Monica Mountains in Ventura County. The genetic flow through these areas is crucial in maintaining the diversity and viability of certain species within the Santa Monica Mountains. Open space linkages between Kanan Road and Calabasas Parkway along State Route-101, as indicated by the National Park Service, are of particular importance for continued wildlife movement due to the lack of alternative routes and encroachment of development. Although there are significantly large open spaces within the SEA, contiguous habitat linkages between them are critical in reducing bottlenecks and providing for long-term sustainability.

### **Santa Susana Mountains and Simi Hills SEA**

The Santa Susana Mountains and Simi Hills SEA includes several important linkages for wildlife movement. The Santa Susana Mountains and Simi Hills provide a vast open space corridor to foster wildlife movement between the Santa Monica Mountains to the south, San Gabriel Mountains to the east, and the Los Padres National Forest to the north. Dense, natural habitat associated with the majority of the study area provides excellent opportunities for concealment and water sources, while the grasslands provide an abundance of prey.

## **IV. Significant Ecological Areas**

### **History of the SEA Program**

Los Angeles County's Significant Ecological Areas (SEAs) Program has schematic roots in an initial



	Criterion	Status	Justification
A)	The habitat of core populations of endangered or threatened plant or animal species.	Met	The SEA is critical habitat for the coastal California gnatcatcher.
B)	On a regional basis, biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution.	Not Met	The SEA contains walnut woodland, which is restricted in distribution in the region of Southern California.
C)	Within the County, biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution	Met	The SEA contains walnut woodland, which is restricted in distribution in the County.
D)	Habitat that at some point in the life cycle of a species or group of species, serves as concentrated breeding, feeding, resting, or migrating grounds and is limited in availability either regionally or in the County.	Met	This SEA is located on the eastern upland area of the San Gabriel River and is considered critical habitat for connectivity of the coastal California gnatcatcher. The largest population of the gnatcatcher in the County is on the west side of the San Gabriel River and the Interstate-605. Critical habitat in the SEA is on the east side of the San Gabriel River and the Interstate-605. The SEA is an arm extending to the rest of the gnatcatcher critical habitat and connecting to the rest of the Puente Hills SEA. The SEA is an important connecting and migration area for plants and wildlife of the Puente-Chino Hills of the Peninsular Ranges.
E)	Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent unusual variation in a population or community.	Met	The SEA is part of the education network of the public community colleges of the Los Angeles area. The area is used by the college for scientific study and research on native wildlife and plants. The college maintains field records on the biotic resources of the area. The SEA is relatively undisturbed. As a "choke point" for the wildlife corridor, it is an important area of research and study of connectivity.
F)	Areas that would provide for the preservation of relatively undisturbed examples of the original natural biotic communities in the County.	NotMet	The SEA has little disturbed areas, as well as recovering natural habitat.

In conclusion, the area described is an SEA because it contains A) core habitat for a threatened species; D) is an important choke point in a significant migration and connective corridor of the County and the region of Southern California; and E) is an important resource to the education community of the County because of its connective status and its natural and recovering habitats.

### **San Andreas SEA**

#### ***Boundary and Resources Description***

The San Andreas SEA is located in the western portion of the Antelope Valley in an unincorporated

area of the County. The SEA is the second largest SEA and includes many diverse habitats. This is in large part due to the northwestern area being a meeting place for several diverse biomes and wildlife corridors. There are five ecoregions that meet in this area and have biological species that extend along the SEA and San Andreas Fault in the County. These ecoregions include California Coastal Mountains; California Central Valley; Tehachapi Mountains, which extend to the southern Sierra Nevada; San Gabriel Mountains, which extend to other ranges in the Transverse Ranges; and the Antelope Valley, which is the western limit of the Mojave Desert. Wildlife corridors extend along the courses of the mountain ranges, as well as along the San Andreas Fault and Garlock Fault, which provide a great variety of habitats and frequent emergent water that is important for wildlife, plant movement and connectivity. The location and orientation of the SEA coincides with a segment of the San Andreas Fault Zone. The SEA includes a small portion of the western south-facing Tehachapi foothills, which are known for wildflower field displays in years of good rainfall. The SEA extends east and south across grasslands at the western tip of the Antelope Valley, and includes Quail Lake, a sag pond enhanced to receive water from the West Branch of the California Aqueduct. From Quail Lake, the SEA extends up the northern foothills of Liebre Mountain, Sawmill Mountain, and includes Portal Ridge; large portions of Leona Valley; Ritter Ridge, Fairmont and Antelope buttes; and portions of Anaverde Valley. It also includes a disjunct area that encompasses water bodies along the fault, Lake Palmdale, and Una Lake, with a terminus at Barrel Springs.

The Antelope Valley and adjacent desert slopes of the SEA are recognized by Audubon California as the Antelope Valley (Lancaster) Globally Important Bird Area (IBA). Near Lake Palmdale in the disjunct eastern section of the SEA is part of the Antelope Valley (Lancaster) IBA and near Barrel Springs is part of the Santa Clara River IBA.

The SEA is located at least partially in each of the following United States Geological Survey (USGS) 7.5' California Quadrangles: Frazier Mountain, Lebec, La Liebre Ranch, Neenach School, Fairmont Butte, Little Buttes, Black Mountain, Liebre Mountain, Burnt Peak, Lake Hughes, Del Sur, Lancaster West, Sleepy Valley, Ritter Ridge, and Palmdale.

The northwestern tip of the SEA encompasses south-facing foothills at the western end of the Tehachapi Mountains, in the northwest corner of the County, on the eastern side of Tejon Pass.

From the Tehachapi Foothills, the southern boundary goes south-southeast along Interstate-5, including much of Peace Valley in the Gorman area, which is the broad faulted area that includes Gorman Creek. The SEA boundary crosses the Western Branch of the California Aqueduct, which is south of the junction of Interstate-5 and State Route-138. The boundary continues south along Interstate-5 until the point where the Liebre Mountain ridgeline dips to the highway, and the SEA boundary turns eastward and follows the ridgeline along the northern side of Liebre Mountain.

Along this section of Interstate-5 are several large underpasses for stream courses that are extremely important for wildlife connectivity across Interstate-5. The Angeles National Forest boundary is just east of the highway, and south of the aqueduct. Just north of the Liebre Mountain ridgeline, the San Andreas SEA borders the north, east, and south sides of the eighth unit of the Joshua Tree Woodlands SEA. This woodland is in an unnamed arroyo, and contains a population of the clonal growth form that Joshua trees (*Yucca brevifolia*) exhibit in colder and more fire-prone areas, sometimes referred to as *Yucca brevifolia* var. *jaegeriana*. The woodland is located near the westernmost limit of the range of the species, with a small number of stands and individuals known west of the Interstate-5. The SEA includes the northern slope area of the Angeles National Forest with its diversity of chaparral, grasslands, and oak and conifer forests.



After turning east from Interstate-5 and climbing uphill on the northern slope of Liebre Mountain, the SEA boundary crosses the ridgeline to the south to incorporate natural pristine areas of headwaters for all the branches of Liebre Gulch, which are part of the headwaters for Piru Creek, the largest tributary of the Santa Clara River in Ventura County. The SEA boundary returns to the north face of Liebre Gulch in the vicinity of Sandberg. The boundary tracks the Sawmill Mountain-Maxwell Road, along the broad ridgeline of the mountains and generally trends in a southeasterly direction. This ridgeline is the headwaters of Castaic Creek, which is the largest tributary of the Santa Clara River in Los Angeles County. Castaic Creek is above the Castaic Reservoir, which extends into Cienega Canyon and Fish Creek, which is federally-designated critical habitat for the endangered arroyo toad (*Anaxyrus californicus*). In addition, maintenance of clean water in the source areas is critical for the species.

The boundary turns northeast where it meets Lake Hughes Road. This is an extremely important area of connectivity as the canyon along the Lake Hughes Road (Elizabeth Lake Canyon) drains to Castaic Creek and the Santa Clara River, whereas the Amargosa Creek that goes east and west from the Lake Hughes Road in the fault valley drains to the Antelope Valley in both directions. The junction is topographically broad and well-vegetated though residential, which is excellent for wildlife connectivity in spite of a few houses.

The SEA boundary goes north at the junction with Lake Hughes Road and then skirts the Lake Hughes community's extension into Pine Canyon along the San Andreas Fault. In Pine Canyon, the boundary turns north and returns to its southeasterly direction, skirting the Lake Hughes development along the southern edge of Portal Ridge. Portal Ridge is entirely included in the SEA. A side extension of the southern boundary includes Lake Hughes, which is important for migrating waterfowl, with its sheltered position in the Fault valley. The boundary extends along the southern edge of Lake Hughes, Munz Lake, and Elizabeth Lake, and then trends southeast to go along the Leona Divide, including a large portion of Leona Valley.

The entire area along the San Andreas Fault is rich in wetlands and bogs, but Leona Valley has these in abundance, even in many yards. All of the wetlands in the San Andreas Fault valley and Portal Ridge are home to the greatest concentration of the tricolored blackbird in Southern California, many of which are year-round residents. This bird species has experienced great population declines in recent years and is proposed for listing at both state and federal levels. In the community of Leona Valley, the southern SEA boundary goes along Lost Valley Creek and then along Leona Road to exclude some of the denser residential area in this section. The included area in Leona Valley has many of the bogs that line the Fault and the less populated farm areas along Portal Ridge north of Leona Road.

North of the Bouquet Canyon watershed, the southern SEA boundary dips south around an expansive area of drainages and bogs used by the tricolored blackbird on the old Ritter Ranch. From Ritter Canyon to the east, the boundary follows the old Ritter Ranch high road along the Sierra Pelona, crosses from 40<sup>th</sup> Street to the California Aqueduct along vegetation in the Anaverde Valley (where the boundary transitions from the Amargosa Creek drainage to the Anaverde Creek drainage), and then follows the aqueduct to the area where Anaverde Creek exits from the Fault valley. At the Lancaster Landfill boundary, the SEA boundary goes north and becomes the north SEA boundary at Verde Point.

The northern boundary of the SEA begins at Tejon Pass next to Interstate-5 and follows the Kern-Los Angeles County line eastward to its intersection with the western branch of the California Aqueduct in the western Tehachapi Foothills. This area along the Kern-Los Angeles County line is

coincident with the designated critical habitat for the federally-endangered California condor (*Gymnogyps californicus*), which is a bird that nearly went extinct and was saved by prodigious efforts in captive breeding. The boundary then generally follows the Tehachapi foothills southward to Quail Lake. Here the northern SEA boundary crosses Highway 138 to include the northern foothills of the Liebre Mountains and fallow agricultural fields, which are important for raptor foraging. These fields are often oriented along the Los Angeles Aqueduct, which is a little south of the California Aqueduct in this area, or along the California Aqueduct itself.

The boundary eventually tracks along the northeast edge of Fairmont Reservoir (another breeding site for the tricolored blackbird), and turns northeast to include a patchwork of farmed areas between the Fairmont and Antelope buttes, which are known to have tricolored blackbird feeding grounds. The boundary makes an inclusive path to encompass the Broad Canyon Wash, the Fairmont and Antelope buttes, and the Antelope Valley California Poppy Reserve State Natural Reserve. These desert buttes are concentrated wintering grounds for birds of prey, and provide roosting sites that are surrounded by cultivated fields that support a plentiful food supply of rodents, rabbits, and hares. They are the most westerly buttes in the Mojave Desert, and with their proximity to the San Gabriel Mountains, have unique ecological relationships of scientific interest. Near the southern area of the buttes, the boundary follows agricultural fields along 130<sup>th</sup> Street West and then 135<sup>th</sup> Street West south to Munz Ranch Road (Willow Springs Road on some maps). Along 135<sup>th</sup> Street West, the boundary crosses Myrick Canyon where it spreads out onto the plain of the desert floor. The upstream areas of Myrick Canyon are included in the SEA.

The boundary tracks along the northwest side of Munz Ranch Road and then crosses to include Willow Springs Canyon, where Willow Springs Canyon is in its most undisturbed state. Where Willow Springs Canyon crosses the California Aqueduct, the northern SEA boundary turns east along the California Aqueduct as it passes along the northern base of Portal Ridge. Following the southern edge of the California Aqueduct, the boundary continues in a southeasterly direction to the east side of Ritter Ridge to Leona Siphon. A development along Joshua Tree Ranch Road near the summit of Ritter Ridge is excluded from the SEA. The SEA northern boundary turns east for roughly one quarter mile along the southern edge of a tributary to Amargosa Creek. Where the Amargosa Creek terminates Ritter Ridge, the SEA boundary crosses the creek and ascends along the ridgeline of an unnamed ridge to where it meets the southern boundary at Verde Point.

East across the State Route-14 is a disjunct part of the SEA that incorporates Lake Palmdale and Una Lake and extends along the Fault to 37<sup>th</sup> Street East, including the ridgelines north and south of Barrel Springs Road, which includes the sag ponds or Barrel Springs. The Palmdale Ditch is included in this part of the SEA. Many migrant birds using the desert water features can be observed at these artificial lakes and the natural springs of this area during the spring and fall migration.

The gap between the two portions of the SEA includes the Antelope Valley Landfill, disturbed lots, and State Route-14.

The majority of land within the SEA lies within unincorporated area of the County. Other jurisdictions include the Angeles National Forest, the City of Palmdale, and the City of Lancaster.

### **Wildlife Movement**

The SEA includes several important linkages for wildlife movement. The foothills in the western-most part of the SEA are an important linkage between the San Gabriel Mountains, the Tehachapi Mountains, and the Coastal Ranges. This linkage to the Tehachapi Mountains is important because

they connect to the southern-most extent of the Sierra Nevada Mountains. The Tehachapi Mountains represent the only mountain linkage from the Transverse Ranges and the Coast Ranges to the Sierra Nevada Range. This feature may be an important topographic reference for migrating birds, as well as providing high elevation foraging grounds along the migratory route. The several ranges that meet at the western end of the SEA, provide a valuable link for gene flow between divergent subspecies, varieties, and populations of many species. The SEA includes numerous drainages that extend onto the Antelope Valley floor towards resources, such as the Fairmont and Antelope buttes. These washes provide an important linkage for animals traveling between the Valley floor, the buttes and the western part of the San Gabriel Mountains. In addition, Anaverde Creek, Amargosa Creek, and Pine Canyon facilitate east-west wildlife movement through the mountains, Portal Ridge, and Ritter Ridge. Tributary drainages from the Santa Clara River, such as Elizabeth Lake Canyon and San Francisquito Canyon, connect coastal drainages and the coastal ecoregion to the Fault and interior watersheds. The frequency of valuable riparian communities along this travel route, which are located within an otherwise arid climate, further contributes to the SEA's importance for wildlife and habitat linkages in the region.

### ***Regional Biological Value***

The SEA meets several SEA designation criteria and supports many regional biological values. Each criterion and how it is met described below.

#### **CRITERIA ANALYSIS OF THE SAN ANDREAS SEA**

<b>Criterion</b>		<b>Status</b>	<b>Justification</b>
A)	The habitat of core populations of endangered or threatened plant or animal species.	Not met  Met in Future?	Although there are several listed species that occur within the SEA, this criterion is not met due to the lack of known core population areas. The far northwestern border with Kern County is the edge of critical habitat for the California condor. The tricolored blackbird may soon be listed and has its largest population in Southern California within the SEA.
B)	On a regional basis, biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution.	Met	The SEA encompasses a series of marshes and sinks concentrated along the San Andreas Fault Zone, which are both unique and restricted in distribution. The Fairmont and Antelope buttes represent a unique habitat due to their location, as the most westerly buttes of the Mojave Desert and their close proximity to several geographic regions. As the confluence of a number of major geographical areas, the Mojave Desert, the San Gabriel Mountains of the Transverse Ranges, the Coastal Ranges, and the Tehachapi Mountains produces a unique and regionally rare flora that represents a transition between desert, foothill, and several montane environments.
C)	Within the County, biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution.	Met	The confluence of five major geographical areas—the Mojave Desert, the San Gabriel Mountains, the Coastal Ranges, the Tehachapi Mountains, and the Central Valley—has produced the most unique and diverse flora found in the County, and represents a transition between desert, foothill, and montane

Criterion		Status	Justification
			environments. The SEA also includes the southern limit of the foothill woodland community, blue oak, gray or foothill pine, and California buckeye, rare relic stands of Great Basin sagebrush scrub, and rare wildflower fields.
D)	Habitat that at some point in the life cycle of a species or group of species, serves as concentrated breeding, feeding, resting, or migrating grounds and is limited in availability either regionally or in the County.	Met	The Fairmont and Antelope buttes provide vital habitat to many wide ranging species, which forage in outlying habitat, but use the buttes for nesting, roosting, denning, and refuge. The buttes also serve as concentrated wintering grounds for birds of prey, which are rare in the County, and which forage on grassland and agricultural fields in the vicinity. Lakes and other wetland areas along the Fault and throughout the SEA provide breeding habitat for amphibians and feeding habitat for migrating birds that traverse the slopes adjacent to the Mojave Desert. The Fault is one of the principle wildlife corridors and connective areas for in the County. Major drainages (Santa Clara River, San Francisquito Canyon, and Lake Elizabeth Canyon) run from the coast through the San Gabriel Mountains and end at the Fault, which also has extensive riparian habitat that facilitates migration. The Fault provides the final westernmost linkage to the Mojave Desert (Antelope Valley). The tricolored blackbird is a year-round resident of the SEA.
E)	Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent unusual variation in a population or community.	Met	The transition of several habitat types including creosote bush scrub, Joshua tree/California juniper mixed woodland, and desert chaparral, makes the SEA valuable for educational and scientific reasons. The close proximity of the Fairmont and Antelope buttes to the San Gabriel Mountains renders them unique in their species composition and ecological relationships and, therefore, of interest to scientists. The concentrated diversity of vegetation types, particularly in the western half of the SEA, creates an outstanding opportunity for educational use. This area also harbors the southern limit of the foothill woodland community, blue oak, gray or foothill pine, and California buckeye, as well as rare relic stands of great basin sagebrush scrub.
F)	Areas that would provide for the preservation of relatively undisturbed examples of the original natural biotic communities in the County.	Met	The slopes of Ritter Ridge support one of the most pristine mixed stands of Joshua tree and California juniper in Los Angeles County. The location of the SEA at the confluence of five major geographical areas, the Mojave Desert, the Central Valley, the San Gabriel Mountains of the Transverse Ranges, the Coastal Ranges, and the Tehachapi Mountains has produced a community-rich area with desert, foothill, and montane environments. The SEA encompasses large, mostly undisturbed examples of all of these communities.

In conclusion, the area is an SEA because it contains B-C) biotic communities, vegetative associations, and habitat of plant and animal species that are restricted in distribution in the County and regionally; D) concentrated breeding, feeding, resting, and migrating grounds, which are limited



in availability in the County; E) biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent unusual variation in a population or community; and F) areas that provide for the preservation of relatively undisturbed examples of original natural biotic communities in the County.

## **San Dimas Canyon and San Antonio Wash SEA**

### ***Boundary and Resources Description***

The San Dimas Canyon and San Antonio Wash SEA is located along the cismontane foothills of the eastern San Gabriel Mountains. Generally, the SEA is centered on the mouths of four major canyons, which flow from the mountains and interconnecting terrain. From east to west, these canyons include San Antonio Canyon above the City of Claremont as one component; and Live Oak, Marshall, and San Dimas canyons above the cities of La Verne and San Dimas as a second component. The SEA incorporates areas with diverse natural habitat ranging from high elevations to the foothill alluvial areas of two of the major drainages of the San Gabriel Mountains. San Dimas Canyon is a tributary of the San Gabriel River. San Antonio Wash is a tributary of the Santa Ana River.

The SEA is found within the Mount Baldy and Ontario U.S. Geological Survey (USGS) 7.5' California Quadrangles.

Over most of its boundaries, particularly to the north, east, and west of both the San Dimas Canyon and San Antonio Wash components, the SEA is bordered by open space within the Angeles National Forest. Generally to the south, however, the borders are mostly defined by the edge of urban development within the San Gabriel Valley. The San Dimas Canyon component covers approximately 5,500 acres and includes portions of Live Oak, Marshall, and San Dimas canyons. The smaller component, San Antonio Canyon, covers approximately 1,200 acres of the San Antonio Canyon alluvial outwash. In total, this SEA encompasses 6,727 acres.

In general, the topography of the SEA is severe, consisting of steep-walled canyons and narrow ridgelines. Elevations range from a high of approximately 3,000 feet above mean sea level (MSL) along the ridges of San Dimas Canyon, to a low of approximately 451 feet above MSL in San Antonio Wash. Several major drainages and numerous tributaries exit the San Gabriel Mountains through this SEA.

The wide range of elevation, topography, slope aspect, and geology represent a wide array of physical habitats within this SEA. Consequently, a number of plant communities exist, including grasslands, riparian, shrublands, woodlands, and forests. Within these major community types, there are many sub-communities, which vary according to plant species dominance. This area contains the last remaining relatively well-developed lower montane riparian habitat in the eastern County. Dammed drainages have created significant reservoirs or flood control basins in the SEA. The SEA is within several jurisdictions including the Angeles National Forest, the unincorporated area of the County, the City of Claremont, the City of Glendora, the City of La Verne, and the City of San Dimas.

The more westerly component of this SEA generally includes portions of the lower watersheds of San Dimas, Marshall, and Live Oak canyons, which is part of the San Dimas Canyon component. The San Dimas Canyon watershed is part of the Experimental Forest section of the Angeles National Forest. Experiments were conducted and data was collected here during the latter half of the 20<sup>th</sup> century to determine the relationships among rainfall, topography, vegetation, and runoff. Much of the work and results influenced flood control in the Los Angeles Basin and even other areas of the U.S. The area was carefully protected through very limited and monitored access. The terrain

associations, and habitat of plant and animal species that are either unique or are restricted in distribution in the County and regionally; D) concentrated breeding, feeding, resting, and migrating grounds, which are limited in availability in the County; E) populations of scientific interest because of very restricted distributions and isolated populations; and F) areas that provide for the preservation of relatively undisturbed examples of original natural biotic communities in the County.

### **Santa Clara River SEA**

#### ***Boundary and Resources Description***

The Santa Clara River SEA extends along the entire County reach of the Santa Clara River, primarily within unincorporated areas of the County. The SEA encompasses a wide variety of topographic features and habitat types, as well as major tributaries—all of which contribute to this diversity. It is a major biotic corridor for the County (and Ventura County). The orientation and extent of the SEA depends upon the surface and subsurface hydrology of the Santa Clara River, from its headwaters, tributaries, and watershed basin, to the point at which it exits the County's jurisdiction. Nearly all of the SEA is designated by Audubon California as a Globally Important Bird Area (IBA). The Santa Clara River IBA extends beyond the SEA in both upstream and downstream directions (across Soledad Pass to the Barrel Springs area in the Antelope Valley and through Ventura County to the mouth of the River at the Pacific Ocean).

The SEA is located at least partially in each of the following United States Geological Survey (USGS) 7.5' California Quadrangles: Pacifico Mountain, Acton, Agua Dulce, Sunland, San Fernando, Mint Canyon, Oat Mountain, Newhall, and Val Verde.

The SEA covers a wide variety of topographic features and habitat types, including parts of the watershed tributaries. The biological and ecological functionality of the SEA is integrally linked to the Santa Clara River basin for its entire length. The bio-geographic limits of the SEA would extend downstream through Ventura-Los Angeles County line to its mouth at the Pacific Ocean, and encompass significant tributary drainages of Ventura County (Piru Creek, Sespe Creek, Santa Paula Creek, Wheeler Creek, etc.).

The eastern portion of the SEA follows natural contours at the headwaters of the watershed to incorporate much of upper watershed of Soledad Canyon (which becomes the Santa Clara River), the Kentucky Springs and the Aliso Canyon basins, and the downstream unnamed tributaries of the Santa Clara River to Arrastre Creek. This includes the watershed southern headwater areas within the Angeles National Forest. The headwaters of both Kentucky Springs and Aliso Canyon are in the Angeles National Forest, in semi-arid chaparral and desert scrub habitat; however, the drainages themselves support vegetation of desert and interior riparian habitat, which ranges from Great Basin sagebrush in Kentucky Springs Wash to dense, mature, willow-cottonwood-sycamore woodlands along permanent streams in Aliso Canyon. The surrounding uplands in the basins support pinyon-juniper woodlands, chamise, mountain mahogany, and manzanita-dominated chaparral, buckwheat scrub, and ruderal lands. The alluvial plain formed along the southern margin of the Santa Clara River basin below these canyons supports intact, high diversity xeric alluvial fan sage scrub. Alluvial terraces within both drainages have been extensively cultivated for orchard crops and dryland agriculture, and in more recent years, rural and urban-type residential developments have encroached on the watersheds. The Kentucky Springs basin has a large population of Parish's Great Basin sagebrush (*Artemisia tridentata* ssp. *parishii*), which is considered rare and sensitive in the County. A population of the federally-threatened red-legged frog (*Rana draytonii* FT, SC) is known to inhabit and breed in the Aliso Canyon watershed. Blum Ranch and another area on Aliso Canyon

Road are disturbed, with farming development, but important to continuity of the SEA. The Santa Clara River IBA extends in a branch upstream to include Blum Ranch.

The boundary follows the Santa Clara River channel downstream through the Acton basin, paralleling Soledad Canyon Road on the north side, following the toe of the slope of the San Gabriel Mountains to the south. Boundaries continue along the channel margins to the southwest from Acton to Arrastre Creek, where the southern boundary follows watershed contours to take in four upper tributary channels (Arrastre, Moody, and Bootleggers). Downstream from Acton, there are developed areas as along the Santa Clara River. From a little upstream of the Arrastre Creek confluence to a little downstream in the vicinity of the railroad stop of Lang (about 13 miles of river), the floodplain of the Santa Clara River is designated critical habitat for the federally-endangered arroyo toad (*Anaxyrus californicus*). Some of the confluence area of Mill Canyon is also critical habitat for the arroyo toad. Part of the area of critical habitat for the toad was also proposed as critical habitat for the state and federally-endangered unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), which is a small three-inch fish that essentially only occurs in the County. It once was widespread throughout the Los Angeles Basin and beyond, but is now restricted to the upper Santa Clara River. The proposal for critical habitat was never approved, and this is now referred to as "essential habitat" for the fish. The type area for the fish is the Arrastre Creek, where it was first collected and described with a museum specimen.

The habitat along the Santa Clara River supports the largest community of riparian-obligate birds between Santa Ynez River in Santa Barbara County and the Prado Basin in Riverside County. In the Soledad Canyon stretch are breeding summer tanager (*Piranga rubra*) and other desert species, along with some instances of least Bell's vireos (*Vireo bellii pusillus*), coastal cactus wrens (*Campylorhynchus brunneicapillus sandiegensis*), and southwestern willow flycatchers (*Empidonax traillii extimus*) from the coastal influence areas. The area is notable for having a combination of species that are characteristic of the desert and characteristic of coastal-influence.

Just west of the confluence with Arrastre Creek the northern boundary loops up to the slopes of Parker Mountain and the eastern watershed of Hughes Canyon around the basal contours of significant rock outcroppings above the river basin, and on the south side, around the Mill Canyon tributary basin. The rocky buttes on the north side of the river, while only a minor part of the watershed of the river, provide important nesting, roosting, and sheltering habitat values for bats, birds of prey, and other sensitive species foraging along the river corridor. The boundaries stay at the river margins west to the watersheds of two northern tributaries, Nellus and Bobcat canyons. These drainages were identified by the South Coast Wildlands Project as important to connectivity across the Santa Clara River between the western and eastern highland areas of the San Gabriel Mountains.

At the Agua Dulce Canyon drainage, the northern boundary loops around the watershed, including the Vasquez Rocks County Natural Area. Agua Dulce Canyon has a permanent stream and supports high quality riparian habitat from the confluence with the river to the intersection with State Route-14. The Santa Clara River IBA extends upstream to include about one mile of the Agua Dulce Canyon.

The Agua Dulce underpass of State Route-14 is an important crossing of the highway barrier for wildlife. From that point, north riparian areas exist where the creeks (Agua Dulce and Escondido) pass through Vasquez Rocks County Natural Area. The Agua Dulce Canyon extension was included in the SEA for its value as a wildlife corridor to provide connectivity across the Santa Clara River between the western and eastern highland areas of the San Gabriel Mountains. The extension



includes the watershed of Bee Canyon, which is a downstream tributary of the Santa Clara River. Bee Canyon has an important population of the federally-endangered slender-horned spineflower (*Dodecahema leptoceras*) in its broad, floodplain area. In the Bee Canyon slopes of coastal sage chaparral, the federally-threatened coastal California gnatcatcher (*Poliophtila californica californica*) is sometimes resident. The Bee Canyon area has some underpasses of the State Route-14 that could be used by smaller wildlife if maintained unclogged. The extension includes upper watersheds of Spring and Tick canyons to enhance the connective area. Beyond upper areas of Tick Canyon, the SEA boundaries cross Mint Canyon into the Angeles National Forest and the watershed of Rowher Canyon. The SEA continues to the upper reaches of Rowher Canyon onto the main ridgeline of the Sierra Pelona. At the Mint Canyon crossing, just southwest of the community of Sleepy Valley, a lobe of the SEA extends along Mint Canyon to capture riparian woodlands of coast live oak, with a number of heritage trees (diameters greater than 36 inches). Residences are scattered and the natural communities of chaparral are intact on the canyon slopes.

The southern boundary of the SEA opposite the confluence with Agua Dulce Canyon includes the flood plain. The SEA dips southward into the lower portion of Bear Canyon (tributary of Santa Clara River) and includes undeveloped alluvial terrace slopes of the river downstream of Bear Canyon. The flood plain is a narrowed part of the SEA in the vicinity of Lang, which is a railroad stop on the transcontinental railroad line that runs the length of the Soledad Canyon. Downstream from Lang, the SEA expands to the southern slopes between Lang and Oak Spring Canyon, adjacent to the river channel. Downstream of Oak Canyon, the SEA narrows to the flood plain, passes Sand Canyon, and reaches the west ridge of Sand Canyon. A broad finger of the SEA goes south along the ridgeline of the Sand Canyon watershed, where the finger expands when it reaches the watershed of Placerita Canyon.

The alluvial fans of Oak Springs Canyon and Sand Canyon are important recharge grounds for the river aquifer. Surface flows from both canyons enter the Santa Clara River basin through natural, unconfined channels. Recognizing the importance of the Sand Canyon drainage, the SEA boundaries are drawn to encompass the entire upper Sand Canyon watershed, which is largely natural with scattered residences, as well as the Sand Canyon tributary, Bear Canyon. Most of the upper Sand Canyon and its Bear Canyon tributary are within the Angeles National Forest, and Sand Canyon originates on the peak of Magic Mountain. These canyons form a natural movement zone for wildlife traversing among the western end of the San Gabriel Mountains, the eastern end of the Santa Susana Mountains, and the Santa Clara River basin. Together, they encompass a spectrum of significant and unique habitat, vegetation and wildlife resources. The major habitat linkage zones and watersheds between the river basin and the Angeles National Forest, and the protected areas of the County (Placerita Canyon Natural Area), have also been included within the SEA boundary. Near the peak of Magic Mountain, the boundary contours to the southwest, and then proceeds west along the Santa Clara Divide to its intersection with the junction of Interstate-5 and State Route-14. Natural areas of the Sand Canyon watershed, along with the major topography of ridgelines, earthquake escarpments, grasslands, and canyon habitat features and watersheds of Bear, Placerita, Whitney, and Elsmere canyons are the important features of the wildlife linkage. Existing rural residential developments are excluded from the SEA, but the remaining natural highland areas of the western banks of the Sand Canyon watershed are included. These are integral parts of the river basin recharge system and functional ecosystem.

Parts of this area have coastal sage scrub and are critical habitat for the threatened coastal California gnatcatcher. The watershed of Placerita Canyon southeast of the State Route-14 is generally critical habitat for the federally-threatened coastal California gnatcatcher. An area of development surrounding the Placerita Creek near State Route-14 is excluded from the critical

habitat. The critical habitat area for the gnatcatcher extends along the east side of State Route-14 beyond Placerita Creek and envelops watersheds into the Angeles National Forest along Whitney Canyon, Elsmere Canyon, and southward over the main ridge of the San Gabriel Mountains, into Grapevine Canyon in its upper natural watershed. Upper areas of these canyons with oaks and big-cone Douglas fir are habitat for the California spotted owl (*Strix occidentalis*)

The eastern half of the Los Piñetos undercrossing of State Route-14 on old oil development roads is included, and focuses on a major wildlife conduit connecting the Santa Susana Mountains to the San Gabriel Mountains, and to the Santa Clara River. The adjacent part of the Santa Susana Mountains and Simi Hills SEA includes the west half of the Los Piñetos undercrossing of State Route-14, connecting through the natural oak woodlands and drainages adjacent to the San Fernando Pass. This area, once called "San Francisco" or "Newhall Wedge," is north and west of the junction of Interstate-5 and State Route-14 with The Old Road running through it. The Newhall Wedge area is nearly all critical habitat for the coastal California gnatcatcher. This critical habitat of the Newhall Wedge is adjacent to the gnatcatcher critical habitat across State Route-14 in the SEA, but is in the Santa Susana Mountains and Simi Hills SEA.

The SEA boundary borders State Route-14 from the north ridge of Grapevine Canyon and heads northeast from the Los Piñetos undercrossing, on the natural side of existing development east of State Route-14. The area around development along Running Horse Road off Placerita Canyon has been excluded from the SEA. The movie-shoot ranch at the junction of State Route-14 and Placerita Canyon has much area with development or staging excluded, but there is a connected finger of the SEA in Placerita Canyon that leads to the Placerita Canyon watercourse underpass. Much of the watercourse underpass is used by wildlife to transition between the natural areas of Placerita Canyon and the oil field area on the west side of State Route-14. The SEA narrows to the western hills of Sand Canyon beyond the movie-shoot ranch, to avoid developed areas, and continues back to the river margin at Humphreys railway stop, about a 0.4 mile west of its previous point of departure from the river channel. The boundary was drawn to avoid existing major development, but connect the uplands to the river basin. The narrow aperture for the linkage at the Santa Clara River reflects the remnant nature of the last unobstructed terrestrial passageway between the upland areas and the river.

West of Sand Canyon, the river has been intermittently armored to allow for development within flood hazard zones. From Sand Canyon westward through the residential neighborhoods of Santa Clarita, the SEA boundary continues on the margins of the flood plain to the confluence with San Francisquito Canyon. The segment of the Santa Clara River passing through the City of Santa Clarita is a dry channel, except during seasonal runoff flows. Some irregular extensions go north into tributaries that have remnant riparian habitat and probable outflows from irrigation runoff that flows into neighborhood storm drains. Regardless of the intermittent nature of water, the river bed elevated areas among braided channels support relatively intact stands of alluvial sage scrub, riparian woodland, and southern riparian scrub. The dry zones are essential to the continued genetic isolation and integrity of the unarmored three-spine stickleback population in the upper reaches of the Santa Clara River.

The boundary extends northward upstream into the reaches of San Francisquito Creek (formerly a separate SEA, but now included with the SEA), following the approved development setback limits, north into the Angeles National Forest (Santa Clara/Mojave Rivers District). The SEA continues nearly the length of the San Francisquito Creek to beyond the junction with South Portal Creek in the vicinity of the community of Green Valley. The Santa Clara River IBA extends in a branch upstream in close proximity to the crossing of Copper Hill Drive.

As the channel enters the Angeles National Forest, flows become less seasonal, and riparian resources expand and diversify. San Francisquito Creek supports dense and mature southern riparian scrub and riparian woodland formations, along with small areas of freshwater marsh, which provide essential wintering areas and resident habitat for waterfowl, wading birds, marshland birds, and a variety of other vertebrate species. The headwaters of San Francisquito Creek are on a low ridge that bounds the San Andreas Fault Zone, and this is an important connective element of the SEA, in that it completes the path from the Pacific Ocean through the mountains to the Mojave Desert. The sub-watershed and flood plain of the San Francisquito Creek perennial flow in the Angeles National Forest jurisdiction is designated critical habitat for the federally-threatened red-legged frog, which extends from about the Angeles National Forest southern boundary to about one mile south of the junction with Bee Canyon. Much of the San Francisquito Creek is considered essential habitat (one of three areas) for the endangered unarmored threespine stickleback, although the fish has not been found in the San Francisquito Canyon in recent years.

The boundaries west of the confluence with San Francisquito Creek follow the river margins under the Interstate-5 to the Castaic Creek confluence, at which point the northern setback line has been drawn around the lower portion of Castaic Creek, which embraces the riparian habitat areas around and above the confluence. Castaic Creek is the tributary with the largest watershed for the Santa Clara River in the County. The SEA boundaries go upstream about four miles along the watercourse of Castaic Creek to the crossing of Lake Hughes Road, which is just downstream of Castaic Lagoon. The Santa Clara River IBA extends in a branch upstream into Castaic Creek for approximately one mile.

Relatively extensive areas of willow-cottonwood forest and southern riparian scrub occur west of San Francisquito Creek and within the junction zone of Castaic Creek and the Santa Clara River. These river forests support numerous sensitive species and provide multi-layered riparian habitat for a wide diversity of wildlife species, particularly birds of prey and riparian-obligate song birds, such as the federally-endangered least Bell's vireo (*Vireo bellii pusillus*) and the southwestern willow flycatcher (*Empidonax traillii extimus*).

Federally-designated critical habitat for the endangered arroyo toad extends from the east side of Interstate-5, from the junction of the Santa Clara River with San Francisquito Creek, under the Interstate-5, about 5.8 miles to the confluence, with an unnamed drainage just upstream of the confluence of the river with San Martinez Chiquito. The critical habitat area for the toad also includes the flood plain of Castaic Creek as far upstream as the Interstate-5 undercrossing (about 2.5 miles), and for about one mile upstream into the natural area of Hasley Canyon, a tributary of Castaic. Coincident with the critical habitat for the toad is critical habitat for the endangered least Bell's vireo (FE, SE). Critical habitat for the vireo extends along the floodplain from the Rye Canyon undercrossing of the river (west side of Interstate-5), over the Ventura-Los Angeles County line, to about a mile short of the confluence of the Santa Clara River with Piru Creek in Ventura County (about 9 miles). The river area from near Interstate-5 towards the Ventura-Los Angeles County line is "essential habitat" for the threespine stickleback. A disjunct SEA area is on a ridge south of the river bend at Castaic Junction (interchange of Interstate-5 and State Route-126). This area supports a population of the federal candidate and state-endangered San Fernando Valley Spineflower (*Chorizanthe parryi* var. *fernandina*, FC, SE), which is a diminutive, once-common flower of slopes within the San Fernando Valley and adjacent passes and mountain ranges. The plant became so rare that it was believed to be extinct until it was rediscovered during required surveys for development.

Beyond the confluence with Castaic Creek, the boundaries of the SEA follow the margins of the



Santa Clara River channel to the Ventura-Los Angeles County line. The Santa Clara River IBA has a lobelike expansion opposite the confluence with San Martin Chiquito, extending south to cover diverse topography from river cliffs to confluence flood plains in the area around Potrero Canyon.

The Santa Clara River channel and its alluvial terraces and tributary creeks together form the single most important and natural wildlife movement zone through the County. Mobile species can enter the river basin anywhere along its length (outside of developed areas) and proceed in either direction without having to pass through narrow culverts or blind channels, with continuous vegetative cover and only short stretches of dry substrates. The overall drainage course provides a continuum of aquatic and terrestrial movement opportunities, shelter, forage, and resident habitat from the mouth of the river at Ventura County and the Pacific Ocean, to the Antelope Valley. The drainage course connects to both districts of the Angeles National Forest, and links together three large public resource preserves (Vasquez Rocks and Placerita County Natural Areas and the Angeles National Forest).

### ***Wildlife Movement***

Historically (and prehistorically) the riparian corridor along the Santa Clara River has served as the primary east-west linkage between the Pacific coastline, coast ranges, interior ranges, high desert and southern Sierra (via the Tehachapi Range). Animals moving through the Santa Clara drainage had unobstructed passage along the river and within the riparian systems between the coastal lowlands of Ventura County and the Mojave Desert. The tributary routes extend south into the Santa Susana Mountains, south and north into the San Gabriel Mountains, northward via Castaic, Bouquet and San Francisquito tributaries (over the coastal ranges and San Gabriel Mountains of the Transverse Ranges and into the San Joaquin Valley), west into the central coast ranges, or east through the Tehachapi Mountains, and into the southern Sierra Nevada. The present configuration of the tributary drainages has impinged upon connectivity from the Santa Clarita Valley to the north, but the Santa Clara River remains relatively intact and open. The SEA embraces the river corridor and the linkage zones that are considered essential to ensuring connectivity and resource values within the historic movement zones for all of the wildlife species present within the County portion of the Santa Clara River, including mountain lion, coyote, bobcat, and several medium-sized mammals, as well as birds, reptiles, amphibians, and fishes.

### ***Regional Biological Value***

The SEA meets several SEA designation criteria and supports many regional biological values. Each criterion and how it is met described below.

#### **CRITERIA ANALYSIS OF THE SANTA CLARA RIVER SEA**

Criterion		Status	Justification
A)	The habitat of core populations of endangered or threatened plant or animal species.	Met	The only existing natural population of the federally-endangered unarmored three-spine stickleback is within the Santa Clara River and its tributaries, and all of its essential habitat is in this SEA. The federally-threatened Santa Ana sucker occurs in the river, as does the state species of concern, the arroyo chub. The population of state and federally-endangered slender-horned spineflower in Bee Canyon is one of fewer than seven known occurrences for this

Criterion		Status	Justification
			species, one of only two known occurrences in the County, and one of its largest populations. San Francisquito Creek has a breeding area for the endangered red-legged frog. The San Fernando Valley spineflower (at Newhall Ranch in Interstate-5 vicinity) is found in only a few nearby places. Some of the critical habitat for the threatened California coastal gnatcatcher is included in this SEA. Western spadefoot, which is a species of concern, is extremely rare and local in the County away from this SEA. One of the largest, if not largest populations of least Bell's vireo in the County occurs along the river in the vicinity of the crossing of Interstate-5 near Newhall Ranch. Many RPR-listed rare plants occur within the SEA. Critical habitat occurs in the SEA for the listed arroyo toad, the red-legged frog, the coastal California gnatcatcher, and the least Bell's vireo.
B)	On a regional basis, biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution.	Met	The low-elevation bigcone Douglas fir-canyon oak forests above Placerita Canyon, the vernal pool in the Placerita Canyon-Sand Canyon divide, the native grassland on the Golden Valley Ranch (upper Placerita Canyon), and the alluvial fans with sage scrub in lower San Francisquito Canyon, Kentucky Springs and Acton are unique and regionally restricted biotic communities. Additionally, the riparian forests and woodlands along the Santa Clara River are among the most extensive, diverse and intact vegetative stands of this type in Southern California. Rare aquatic species, such as the unarmored three-spined stickleback, Santa Ana sucker, red-legged frog, least Bell's vireo, summer tanager, spineflower, and many others represented within the SEA are found nowhere else in the region.
C)	Within the County, biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution.	Met	The cottonwood-willow forests and woodlands, alluvial fan sage scrub, and coast live oak riparian forest are best represented in the County within the SEA. The lower elevation examples of bigcone Douglas fir-canyon oak forest communities where they mix with low-elevation biota are restricted to the edges of mountain habitat communities, which are regionally rare and also designated in this SEA.
D)	Habitat that at some point in the life cycle of a species or group of species, serves as concentrated breeding, feeding, resting, or migrating grounds and is limited in availability either regionally or in the County.	Met	The Santa Clara River is simultaneously an oasis running through a dry landscape and an extension of coastal conditions into the dry interior. For this reason, it supports unique populations of aquatic and amphibious species, as well as aridlands species extending towards the coast and coastal species' extension inland. It is a principle migratory route for the County plants and animals and a center of diversity for the County. The Santa Clara River and its tributaries provide breeding opportunities for numerous species otherwise not known to breed within the County, including California red-legged frog, summer tanager, southwestern willow flycatcher, and the unarmored three-spined stickleback. The extensive riparian areas shelter dozens of migrant songbird species during winter, including high concentrations of white-crowned and golden-crowned sparrows, fox sparrow, yellow-rumped warbler, dark-eyed junco, and sharp-shinned hawk. The

Criterion		Status	Justification
			SEA embraces the river corridor and the linkage zones that are considered essential to ensuring connectivity and resource values for many of the wildlife species that are present within the County portion of the Santa Clara River.
E)	Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent unusual variation in a population or community.	Met	The Santa Clara River represents a unique example of a drainage that stretches from the desert to the coast through the mountains. Its resources are, by definition, present at their geographic extremes. Plants such as western juniper, snake cholla, basin sagebrush, and birds, such as summer tanager are at the southwestern edges of their ranges along the river. Coastal taxa extend to the headwaters in the Acton area. High elevation species, such as bigcone Douglas fir, spotted owl, and Steller's jay occur at fairly low elevations at the edges of Santa Clara River valley, on north facing slopes that remain cool all summer.
F)	Areas that would provide for the preservation of relatively undisturbed examples of the original natural biotic communities in the County.	Met	The SEA encompasses some of the highest quality, least disturbed and biotically intact acreage of bigcone Douglas-fir-canyon oak forest, riparian forest and woodland, coastal sage scrub, and alluvial fan sage scrub that remains in the County, and one of the three known vernal pools along the river. Vernal pools are rare everywhere in California.

In conclusion, the area is an SEA because it contains A) the habitat of core populations of endangered and threatened plant and animal species; B-C) biotic communities, vegetative associations, and habitat of plant and animal species that are either unique or are restricted in distribution in the County and regionally; D) concentrated breeding, feeding, resting, or migrating grounds, which are limited in availability in the County; E) numerous examples of species at their habitat extremes as the coastal and desert influences meet; and F) areas that provide for the preservation of relatively undisturbed examples of original natural biotic communities in the County.

### **Santa Felicia SEA**

#### ***Boundary and Resources Description***

The Santa Felicia SEA is located northwest of the City of Santa Clarita within unincorporated area of the County. Some of the SEA extends into the Angeles National Forest. The area is west of the Interstate-5, north of State Route-126 and encompasses almost the entire County portion of the Santa Felicia watershed that drains into Lake Piru and Piru Creek. Piru Creek has the largest watershed of any tributary of the Santa Clara River. The SEA is largely composed of natural coastal slopes of the western San Gabriel Mountains, with south-facing slopes of coastal sage scrub and grasslands, north-facing slopes of oak woodland and chaparral, and canyons of riparian oak forest and other riparian habitats. This habitat has been diminished by development, and the SEA is one place in the County where the natural habitat remains.

The SEA is located at least partially in each of the following United States Geological Survey (USGS) 7.5' California Quadrangles: Whitaker Peak and Val Verde.

Starting at the north end of the SEA boundary on the Ventura-Los Angeles County line, the northern



	Criterion	Status	Justification
E)	extreme in physical/geographical limitations, or represent unusual variation in a population or community.	Met	cone and the Douglas-fir common to the north, and coastal California gnatcatcher at its western extent. Several unusual vegetation alliances are in the Mountains, for example groves of walnuts and flowering ash. Flowering ash within this SEA are uncommonly tall. The Santa Susana Mountains contain some representatives of the desert Palmer's oak, which is unusual in the County.
F)	Areas that would provide for the preservation of relatively undisturbed examples of the original natural biotic communities in the County.	Met	The relatively undisturbed nature and large size of the plant communities within the Santa Susana Mountains and Simi Hills provides many undisturbed examples of native, natural communities within the County.

In conclusion, the area is an SEA because it contains A) core habitats of listed species; B-C) biotic communities, vegetative associations, and habitat of plant and animal species that are restricted in distribution in the County and regionally; D) an essential habitat linkage, which is limited in availability in the County; E) unusual populations at the extreme ends of their distributions that are of scientific interest; and F) areas that provide for the preservation of relatively undisturbed examples of original natural biotic communities in the County.

### **Tujunga Valley and Hansen Dam SEA**

#### ***Boundary and Resources Description***

The Tujunga Valley and Hansen Dam SEA is located on the northern edge of the San Fernando Valley. The SEA consists of the Tujunga Valley and Wash, starting in the riparian areas of the Big Tujunga, which is the main tributary of the Los Angeles River, within the Angeles National Forest and stretching to include Hansen Dam, Hansen Dam Flood Control Basin, Hansen Dam Park, Hansen Dam Golf Course, Tujunga Wash, and industrial areas downstream of the Hansen Dam. The SEA is entirely in the City of Los Angeles. Most of the part of the SEA upstream, including the Hansen Dam, is an Audubon California designated State Important Bird Area (IBA), which is part of the Los Angeles Flood Control Basin IBA. The Big Tujunga area is recognized for its great importance to migrating birds on the Pacific Flyway as well as the very rare habitat of alluvial fan scrub, which has uncommon resident birds. The Tujunga Wash above Hansen Dam and into the Angeles National Forest beyond the SEA is designated critical habitat for the federally-threatened Santa Ana sucker (*Catostomus santaanae*). Two other fishes of the original native four for the Los Angeles River also occur in the Wash and upstream in the Big Tujunga: arroyo chub (*Gila orcuttii*) and an unnamed subspecies of the speckled dace group (*Rhinichthys osculus* ssp. 3).

The SEA is located within portions of the United States Geological Survey (USGS) 7.5' California Quadrangles: San Fernando, Sunland and Van Nuys.

The SEA boundary encompasses the Tujunga Valley Wash and the Hansen Dam Recreation area. The SEA begins in the Angeles National Forest downstream of the confluence of Pipe Canyon with the Big Tujunga, and generally includes the Wash area for much of its extent. The Wash most of the time has water, and from downstream at Hansen Lake (in the Hansen Dam Park) to beyond the upstream area of the SEA, is critical habitat for the federally-threatened Santa Ana sucker

(*Catostomus santaanae*). This critical habitat extends beyond the SEA and beyond the Big Tujunga Dam to near the headwaters in both Mill Creek and the Upper Big Tujunga Canyon. The state fish species of concern, speckled dace (*Rhinichthys osculus* ssp. 3) and arroyo chub (*Gila orcuttii*) also occur here. A finger extends off the Wash, up a ridge with native chaparral habitat towards Mount Lukens. The boundary travels east to west, and the Wash receives multiple tributaries from the north and south as it flows west. The northeastern end of the Los Angeles Flood Basins IBA begins at about the crossing of Oro Vista Avenue over the Big Tujunga Wash. The clubhouse part of the Angeles National Golf Club next to Foothill Boulevard is excluded from the SEA, but most of the golfcourse, which has the natural braids of the wash running among its greens, is included in the SEA. East and adjacent to the golf course is a state reserve area for the state and federally-endangered slender-horned spineflower (*Dodecahema leptoceras*). This diminutive wash plant is known locally from Santa Clarita to the east end of the San Bernardino Mountains, and south to the Santa Ana Mountains. It is endangered due to all kinds of development that alters wash flood plains. The golf course area once had and may still have some plants.

The Wash, golf course, and the reserve area have an unusual remnant vegetation of alluvial fan scrub, with California junipers (*Juniperus californica*), cactus patches of prickly-pear (*Opuntia littoralis*) and cholla (*O. parryi*), in conjunction with the usual riparian and scrub plants. The very sensitive coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) is in residence in this area. The natural area of riparian vegetation is on the banks of the Wash, golf course, and reserve next to the Wash, as well as with a remnant native forest in the stream course of Haines Canyon Creek, which joins the Wash at the golf course. This kind of habitat, which once covered the bajada of coalescing coastal alluvial fans next to the mountains of the County has been nearly extirpated by development and flood control. It is only represented in a few places in the County. The San Gabriel Canyon SEA has another example at the Santa Fe Dam Recreation Area. Migratory waterfowl often use the ponds of the golf course that are filled by Haines Canyon Creek and the Big Tujunga. The alluvial fan habitat mixed with riparian forest continues across the Interstate-210 as the Big Tujunga Wash approaches and flows into Hansen Dam Park.

The SEA has a broad undercrossing of the Interstate-210, which includes a braid of its tributary Haines Canyon Creek crossing under Foothill Boulevard next to Wentworth Street. The Wentworth Street undercrossing is important to wildlife, as it connects to somewhat dispersed horse ranchettes in the Shadow Hills and from there to the natural areas of the Verdugo Mountains and the Verdugo Mountains SEA. Mountain lions may live in the Verdugo Mountains, which would be an important connection for that population as well as for other animals and plants of the Verdugo Mountains.

The Hansen Dam Park is a meeting area for migratory birds with its perennial water and riparian forest that includes some giant sycamores (*Platanus racemosa*) and cottonwoods (*Populus fremontii*). It is a favorite of bird watchers, and the species list has about 260 species. Unusual species have been observed here, such as the federally-endangered coastal California gnatcatcher (*Polioptila californica californica*). Downstream of the Dam, the Hansen Dam Golf Course is included in the SEA, since the pools and mix of native riparian vegetation along with the ornamental vegetation attracts wildlife. The downstream side of the earthen Hansen Dam has been planted with coastal sage scrub, and may be attractive to the gnatcatcher. The quarry and recharge areas have many spots of willow scrub and occasional other native vegetation. The quarry and the recharge pool areas are included in the SEA up to the undercrossing of San Fernando Boulevard.

The area southwest of the Dam is used as a spreading ground. This has created several freshwater marsh areas that are used by marsh birds, migratory waterfowl, and shore birds. The area is also valuable as a wildlife corridor. The vegetation in the Tujunga Valley runs nearly uninterrupted from

the foot of the Verdugo Mountains well up into the San Gabriel Mountains. The area has been recognized for its importance, and is used by the Audubon Society and local universities and colleges as a sample of a rapidly disappearing habitat type. As a result, the resources of the area are well known.

### **Wildlife Movement**

Although wildlife movement is hampered by development surrounding the SEA to the south, animals are still able to move through the adjacent hills and valleys, and through the Verdugo Mountains, well up into the San Gabriel Mountains. Due to its large size and topographic complexity, many linkages are certain to occur within the SEA at various bottlenecks. These linkages allow movement between large open space areas within the SEA. Although there are significantly large open spaces within the SEA, contiguous habitat linkages between them are critical in reducing bottlenecks and providing for long-term sustainability. A wide variety of wildlife use linkages throughout the SEA, including mountain lion (*Puma concolor*), coyote, mule deer, bobcat (*Lynx rufus*), and a number of medium-sized mammals. The Wentworth Street underpass of Interstate-210 is a conduit for wildlife through the dispersed residential neighborhoods of the Shadow Hills. The Shadow Hills are the westernmost extent of the Verdugo Mountains, which provide a large area of natural habitat for wildlife.

### **Regional Biological Value**

The SEA meets all SEA designation criteria and supports many regional biological values. Each criterion and how it is met is described below.

#### **CRITERIA ANALYSIS OF THE TUJUNGA VALLEY AND HANSEN DAM SEA**

Criterion		Status	Justification
A)	The habitat of core populations of endangered or threatened plant or animal species.	Met	The Tujunga Valley Wash supports populations of the federally-endangered plants Nevin's barberry and slender-horned spineflower. Most of the SEA is critical habitat for the federally-threatened Santa Ana sucker. Two other sensitive native fishes, speckled dace and arroyo chub, co-occur with the sucker. Coastal California gnatcatcher may be a resident of the area. The coastal cactus wren nests in the alluvial fan vegetation of the SEA.
B)	On a regional basis, biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution.	Met	The stream is naturally perennial, but largely controlled by the upstream Big Tujunga Dam. Similar wash and floodplain habitat of these plants and fishes is under considerable pressure from development and from flood-control hard channelization throughout Southern California. The rarity of the vegetation extends to other biota that use these areas, and these plants are indicators for a widespread loss of this kind of habitat. Several birds considered species of special concern occur in the SEA. They typically occupy alluvial scrub areas, such as the outwash fans formerly found where mountain canyons exit onto the plain of the Los Angeles Basin, and are in this habitat in the SEA.



C)	Within the County, biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution	Met	The wash and floodplain habitat of these plants, fishes, and birds is under considerable pressure from development and for flood-control hard channelization throughout Los Angeles and is much diminished from the continuous habitat it once was.
D)	Habitat that at some point in the life cycle of a species or group of species, serves as concentrated breeding, feeding, resting, or migrating grounds and is limited in availability either regionally or in the County.	Met	This SEA is located on one of the main tributaries of the Los Angeles River, Tujunga Canyon and connects with the Hansen Dam flood and recharge area. In spite of the channelization of the Los Angeles River, this area is still an important connecting and migration area for plants and wildlife between the San Gabriel Mountains, the Verdugo Mountains, and the San Fernando Valley. It is an important rest area for aerial fauna traveling between the Santa Monica Mountains and the San Gabriel Mountains.
E)	Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent unusual variation in a population or community.	Met	The scarcity of natural alluvial wash and fan habitats in Los Angeles ensures that the remaining ones are good areas for scientific study of birds and other organisms that were once more common in the Los Angeles area.
F)	Areas that would provide for the preservation of relatively undisturbed examples of the original natural biotic communities in the County.	Met	The Tujunga Valley Wash is a relatively undisturbed example of the alluvial washes and fans that once lined the mountains of Los Angeles. It is near a fresh water marsh area used as a spreading ground that is southwest of the dam. A fresh water marsh near the stream exit from the mountains would have been typical of the former configuration with faults along the mountain base, creating uneven ground that would contain marsh pockets. Now most of this type of area has been developed for residences, and most of the washes have been altered as flood control projects. The Wash, therefore, is important to preserve.

In conclusion, the area is an SEA because it contains A) the habitat of core populations of endangered and threatened plant and animal species; B-C), biotic communities, vegetative associations, and habitat of plant or animal species that are restricted in distribution on a regional basis and limited in availability in the County; D) habitat for breeding, feeding, resting, and migrating that is limited both in the County and regionally; E) biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent unusual variation in a population or community; and F) areas that provide for the preservation of relatively undisturbed examples of original natural biotic communities in the County.

# **EXHIBIT 5**

## How do High-Speed Train Noise Levels Compare to Traditional Trains?

*Four major factors make high-speed trains operate at generally quieter levels than conventional passenger and freight rail services.*

### Duration of Noise Disturbance\*



#### HIGH-SPEED TRAIN

TRAIN LENGTH: 1,300 FT.  
SPEED: 220 MPH



#### FREIGHT TRAIN

TRAIN LENGTH: 1-MILE  
SPEED: 50 MPH

### 1 Train Speed

The duration of noise is brief for high-speed trains when compared to traditional train systems which take longer to pass.

### 2 Electric Trains

High-speed trains are powered by an electric propulsion system which, when compared to the more common diesel train engines, generate significantly less noise.

### 3 Auditory Warning Systems

Portions of high-speed train systems that operate on grade-separated track will not require sounding bells and warning horns that are necessary for traditional railroad crossings.

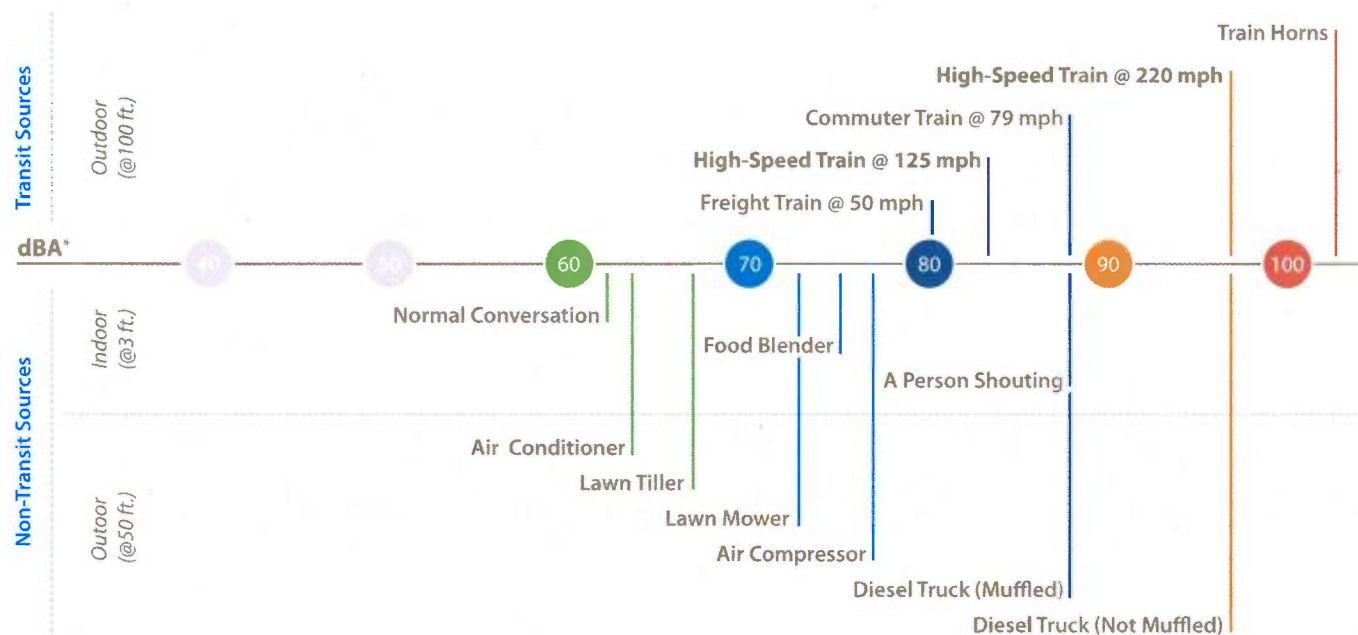
### 4 Hours of Operation

Unlike some passenger train services and many major freight routes which operate through the night, there will not be any high-speed rail service scheduled between the hours of midnight and 5 a.m. when people are most sensitive to noise.

\*Based on typical train-length and speed capabilities. High-speed rail will operate at slower speeds through urban corridors.

## The Sound of High-Speed Train Travel

*Typical Maximum Noise Levels Before Mitigation*

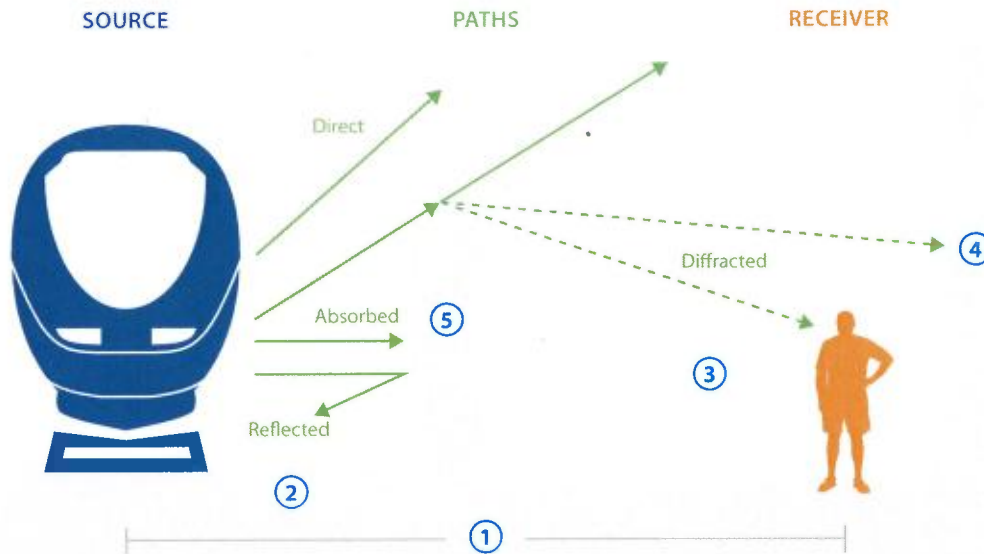


\*A-weighted decibels (dBA) are an expression of the relative loudness of sounds in air as perceived by the human ear



## What Influences Noise Levels?

The **distance** (1) between the train tracks and the listener, the type of **ground surface** (2), **ambient noise** (3), and the presence of **buildings** (4) or **sound barriers** (5) will all influence the noise level that is heard by a listener at any given location.



## How to Minimize the Effects of Noise in Sensitive Areas

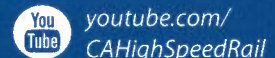
Sound walls, sound barriers (solid and/or transparent), or earthen berms built between the train tracks and residential or other noise-sensitive areas can help reduce noise disturbance caused by the train service. The Authority has committed to mitigating all noise impacts that are classified as severe under FRA guidelines.<sup>(1)</sup>

Additionally, at areas where the train will need to travel through at-grade crossings, the establishment of "quiet zones" where additional safety measures remove the need to sound train horns can help significantly reduce noise-disturbance.

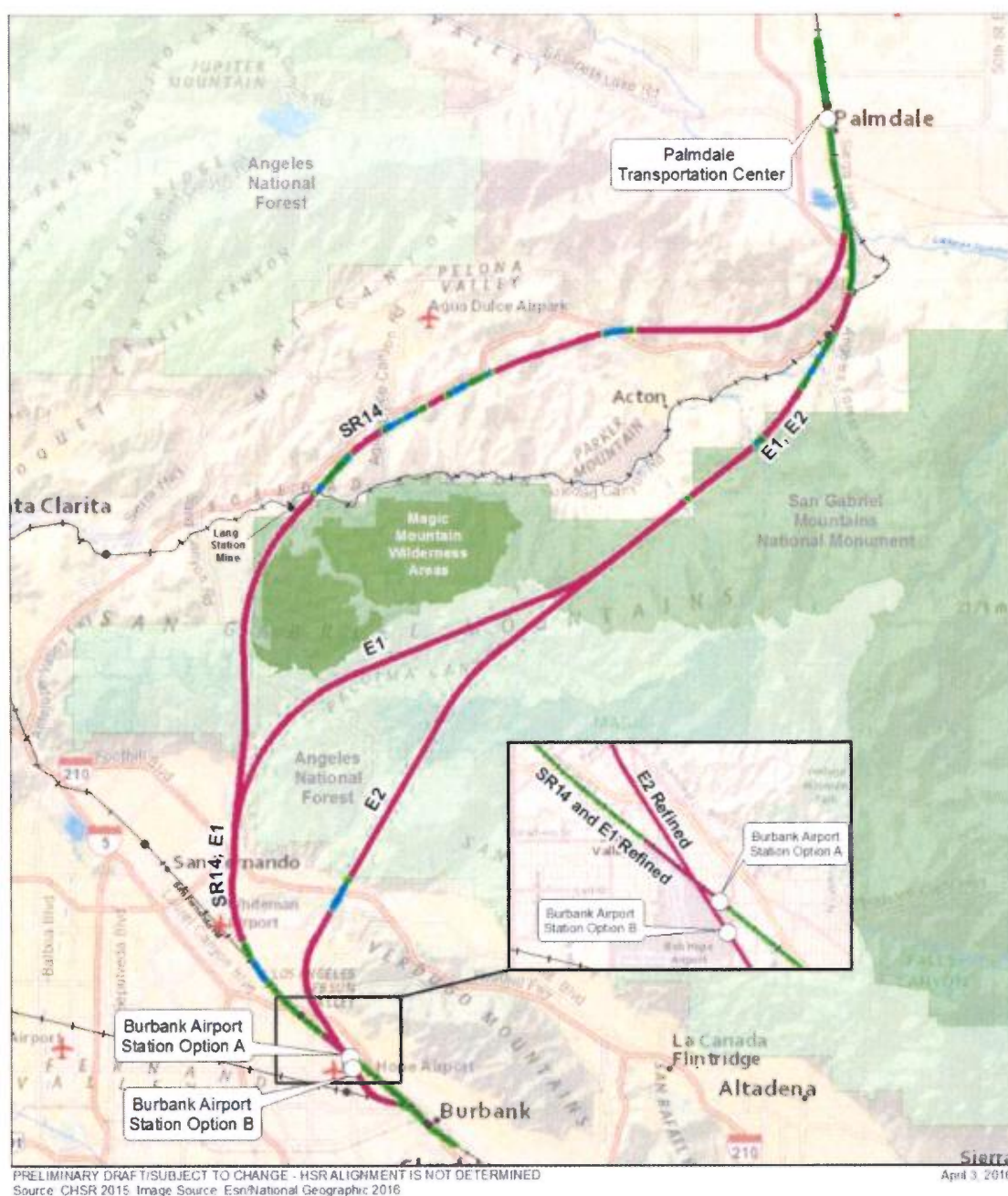
<sup>(1)</sup> FRA High-Speed Ground Transportation Noise and Vibration Impact Assessment (2012)



\*Above images serve as examples of noise mitigation measures and are not an indication of a preferred method for use on the California High-Speed Rail project



# **EXHIBIT 6**



*The alternatives displayed on this map are recommended to be carried forward for further consideration in technical studies and the draft environmental document.*

**Figure 4-1 Alignment and Station Alternatives Carried Forward**



# EXHIBIT 7



COUNTY OF LOS ANGELES  
DEPARTMENT OF PARKS AND RECREATION

*"Parks Make Life Better!"*

Russ Guiney, Director

John Wicker, Chief Deputy Director

September 11, 2014

Sent via email: palmdale\_burbank@hsr.ca.gov

Mr. Mark A. McLoughlin  
Director of Environmental Services  
ATTN: Palmdale to Burbank Section  
California High-Speed Rail Authority  
Southern California Regional Office  
700 North Alameda, Room 3-532  
Los Angeles, CA 90012

Dear Mr. McLoughlin:

**NOTICE OF PREPARATION OF A PROJECT ENVIRONMENTAL IMPACT  
REPORT/ENVIRONMENTAL IMPACT STATEMENT (EIR/EIS) FOR THE  
CALIFORNIA HIGH-SPEED RAIL SYSTEM PALMDALE TO BURBANK SECTION**

The Notice of Preparation of an EIR/EIS for the Palmdale to Burbank section of the California High-Speed Rail System has been reviewed for potential impact on the facilities of the Los Angeles County Department of Parks and Recreation (DPR). Construction of the project as described in the Notice of Preparation may impact facilities under the jurisdiction of this Department for which we offer the following comments:

1. In reference to Exhibit 1, the proposed rail alignments may impact the facilities listed below. These are the areas where visitors hike, picnic, horseback ride and enjoy scenic vistas.

Acton Park	751 Syracuse Avenue Acton, CA 93510
Acton Wash Sanctuary	Soledad Canyon Road and Gillespie Avenue Acton, CA 93510
Vasquez Rocks Natural Area	10700 W. Escondido Canyon Road Agua Dulce, CA 91350
Placerita Canyon Natural Area	19152 Placerita Canyon Road Newhall, CA 91321

Mr. Mark A. McLoughlin  
September 11, 2014  
Page 2

#65 Rim of the Valley Trail (Multi-jurisdictional/including County trail segments)

#71 Santa Clara River Trail (City of Santa Clarita and County)

#78 Placerita Creek Trail (State and County)

#79 Pacific Crest Trail (Federal Trail)

#109 Littlerock Trail (County and Federal)

#110 Palmdale Hills Trail (County)

#114 Acton Community Trail (County)

#116 Vasquez Loop Trail (County)

#Undesignated Darrell Readmond Trail (County)

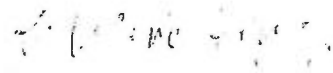
2. The proposed rail alignments near to Vasquez Rocks may have potential impacts on park patron related to aesthetics, air and noises. Additionally if the train is visible from the park or the vicinity, there could be an impact on filming which has been conducted at Vasquez Rocks since the early 1900's. Tunneling the proposed alignment adjacent to the facility may possibly mitigate potential impacts.
3. DPR is also concerned over aesthetics, noise and air quality impacts during the construction and operation. The impacts associated with the proposed project may affect both park patron and trail user's experience especially equestrians within the County's regional trail network and trail segment linked within other jurisdictions and trail systems. Mitigation for aesthetics impacts should include vegetative screening of the project site so that it can create visual relief for the park patrons and trail users.
4. The trail alignments listed above either bisect or run parallel to one or more of the High Speed Rail alternatives. DPR's main concern is for continued multi-use (equestrian, hiking and mountain bicycling) trail connectivity. Solutions to possible conflicts between the final alignment of the High Speed Rail alternatives and County trails include: trail under-crossings and re-routing. DPR will require recordation of trail easements and construction of trails in specific areas where the final alignment of the High Speed Rail intersects proposed Board-adopted County trails, and multi-jurisdictional trails, such as the Rim of the Valley Trail. We look forward to continued collaboration with the Federal Railroad Administration, California High Speed Rail Authority, throughout the project planning process.



Mr. Mark A. McLoughlin  
September 11, 2014  
Page 3

Thank you for including this Department in the review of this environmental document. Should you have any questions regarding trails, please contact Mr. Robert Ettleman at (213) 351-5134 or [rettleman@parks.lacounty.gov](mailto:rettleman@parks.lacounty.gov). For any other inquiries, please contact Ms. Jul Ing Chien at (213) 351-5129 or [jchien@parks.lacounty.gov](mailto:jchien@parks.lacounty.gov).

Sincerely,



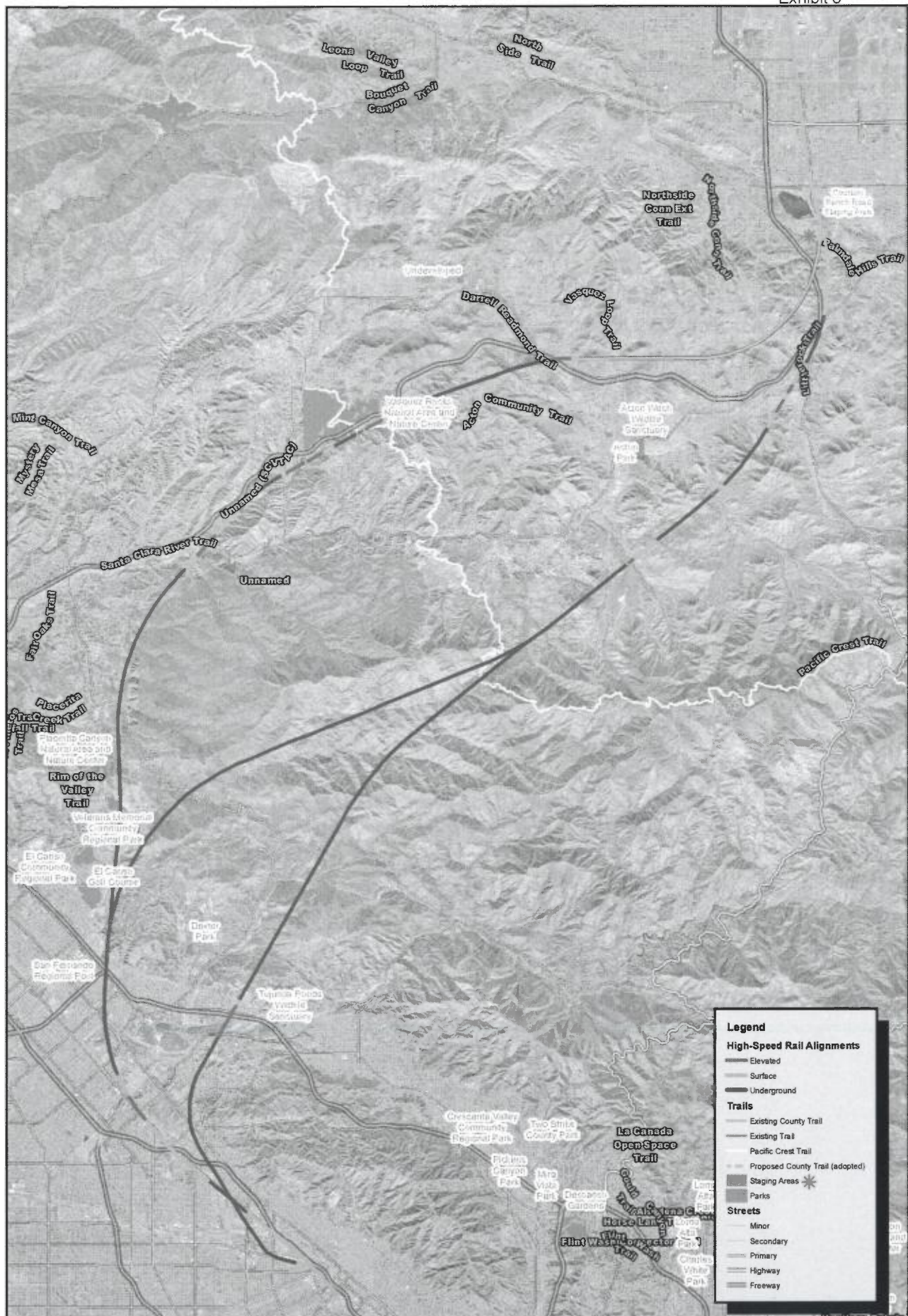
Kathline J. King  
Chief of Planning

KK:JIC/ t/s/Response to High Speed Rail Palmdale to Burbank Section

Enclosure : NOP/IS High Speed Rail Palmdale to Burbank Section- Trail Review Map

c: Parks and Recreation (N. E. Garcia, F. Moreno, R. Ettleman, H. Sohm, D. LaCroix)

# **EXHIBIT 8**





SACHI A. HAMAI  
Chief Executive Officer

## County of Los Angeles CHIEF EXECUTIVE OFFICE

Kenneth Hahn Hall of Administration  
500 West Temple Street, Room 713, Los Angeles, California 90012  
(213) 974-1101  
<http://ceo.lacounty.gov>

January 23, 2017

To: Supervisor Mark Ridley-Thomas, Chairman  
Supervisor Hilda L. Solis  
Supervisor Sheila Kuehl  
Supervisor Janice Hahn  
Supervisor Kathryn Barger

From: Sachi A. Hamai   
Chief Executive Officer

Board of Supervisors  
HILDA L. SOLIS  
First District

MARK RIDLEY-THOMAS  
Second District

SHEILA KUEHL  
Third District

JANICE HAHN  
Fourth District

KATHRYN BARGER  
Fifth District

### **UPDATE ON THE HIGH-SPEED RAIL, BURBANK-LOS ANGELES SECTION (ITEM NO. 23, AGENDA OF JUNE 28, 2016)**

On June 28, 2016, the Board of Supervisors (Board) approved a motion related to the California High-Speed Rail, Palmdale-Burbank Section as follows: 1) Acknowledges that the High Speed Rail Authority (Authority) has proposed routes that threaten severe impacts to homes, quality of life, and sensitive environmental areas that raise tremendous concerns; 2) Opposes the Refined E-2 Alignment, as currently proposed, and any other variation of this alignment that would cross the Big Tujunga Wash at or above grade; 3) Recognizes it has been one year since Supervisors Antonovich and Kuehl asked the Authority to expedite hydrological and technical studies so that communities in Los Angeles County have a clear understanding of when the studies are to begin and end, and when the Authority will be making a decision based on the result of those studies; 4) Acknowledges these studies will provide critical information regarding potential impacts on existing areas of concern to the Board, including but not limited to the communities of Shadow Hills, Lakeview Terrace, and Acton, as well as the recently recognized San Gabriel Mountains National Monument; 5) Requests that the Authority clarify the hydrological and technical studies process and indicate when these studies will be made available to the public; and 6) Directed that a 5-signature letter be sent to the Authority's Board and the Los Angeles County State Delegation reflecting the aforementioned. The Board further directed the Chief Executive Officer (CEO) to coordinate and collect input from all impacted County departments, on all High-Speed Rail alignments in the environmental process throughout the County of Los Angeles, and report back to the Board on an as needed basis in order to facilitate departmental involvement in the process.

*"To Enrich Lives Through Effective And Caring Service"*

**Please Conserve Paper – This Document and Copies are Two-Sided  
Intra-County Correspondence Sent Electronically Only**



On July 1, 2016, the Board sent a 5-signature letter to the Authority's Board and the Los Angeles County State Delegation in response to item 6 of the Motion. Additionally, on September 14, 2016, the CEO provided an update related to the Palmdale-Burbank Section of the High-Speed Rail Project in response to items 1-5. At that time, the CEO reported that it would update the Board once the Authority determines the Palmdale-Burbank Draft Environmental Impact Report (EIR) preferred alternative. The Authority currently plans to discuss the preferred alternative in public outreach meetings and identify a preferred alternative sometime in the first quarter of 2017.

This update is in response to the Motion's request that the CEO coordinate and collect input from all impacted County departments, on all High-Speed Rail alignments in the environmental process throughout the County of Los Angeles and report back to the Board on an as needed basis in order to facilitate departmental involvement in the process. In late November and early December 2016, the Authority held community meetings to present the Burbank-Los Angeles Project Section.

The Burbank-Los Angeles Section of the High-Speed Rail Project will connect a proposed Burbank Airport Station to Los Angeles Union Station along an approximately 12-mile-long alignment of an existing rail corridor. Within the existing rail corridor, the Los Angeles County Metropolitan Transportation Authority owns the rail right-of-way, the Southern California Regional Rail Authority owns the track and operates the Metrolink commuter rail service, Amtrak provides intercity passenger service, and the Union Pacific Railroad holds track access rights and operates freight trains. The Burbank-Los Angeles Section is fully within the cities of Burbank, Glendale, and Los Angeles, and does not pass through or impact any unincorporated areas. See Attachment 1.

### **Departmental Input on the High-Speed Rail, Burbank-Los Angeles Section**

Attachment 2, provides departmental input from Regional Planning, Public Works, Parks and Recreation, and Public Health-Environmental Health on the Authority's Supplemental Alternatives Analysis (SAA) Report presenting the alignment for the Burbank-Los Angeles Section.

### **Proximity to the Los Angeles River**

While the proposed Burbank–Los Angeles Section of the High-Speed Rail Project does not directly impact any unincorporated areas or County operations, the Project will run adjacent to and cross the Los Angeles River. On October 18, 2016, the Board directed the Department of Public Works (DPW) to establish a steering committee comprised of regional agencies, city leaders, nonprofit and community groups, and interested stakeholders to update the Los Angeles River Master Plan, and to establish a working group of County departments including, Health Services, Public Health, Parks and Recreation, and Regional Planning, to coordinate County input on the updated Los Angeles River Master Plan. Based on departmental analysis, further careful evaluation of the Burbank–Los Angeles Section and coordination with the Authority is recommended to ensure compatibility with the Los Angeles River Master Plan update. As such, future updates to the Board regarding the Burbank–Los Angeles Section of the High-Speed Rail Project will be provided by DPW in its reporting back to the Board on the Los Angeles River Master Plan update as directed in the October 18, 2016 Board Motion.

### **High-Speed Rail Timeline for the Burbank-Los Angeles Section**

The Authority reports that the Draft EIR for the Burbank–Los Angeles Section is anticipated for release and public review in December 2017. The departments will provide the CEO with their comments on the Draft EIR to submit to the Authority, upon review by County Counsel, once the document is released.

If you have any questions, please contact Jason Tajima, at (213) 974-1145 or via e-mail at [jtajima@ceo.lacounty.gov](mailto:jtajima@ceo.lacounty.gov). For questions related to specific departmental comments, contact names, phone numbers, and e-mail addresses have been provided in Attachment 2.

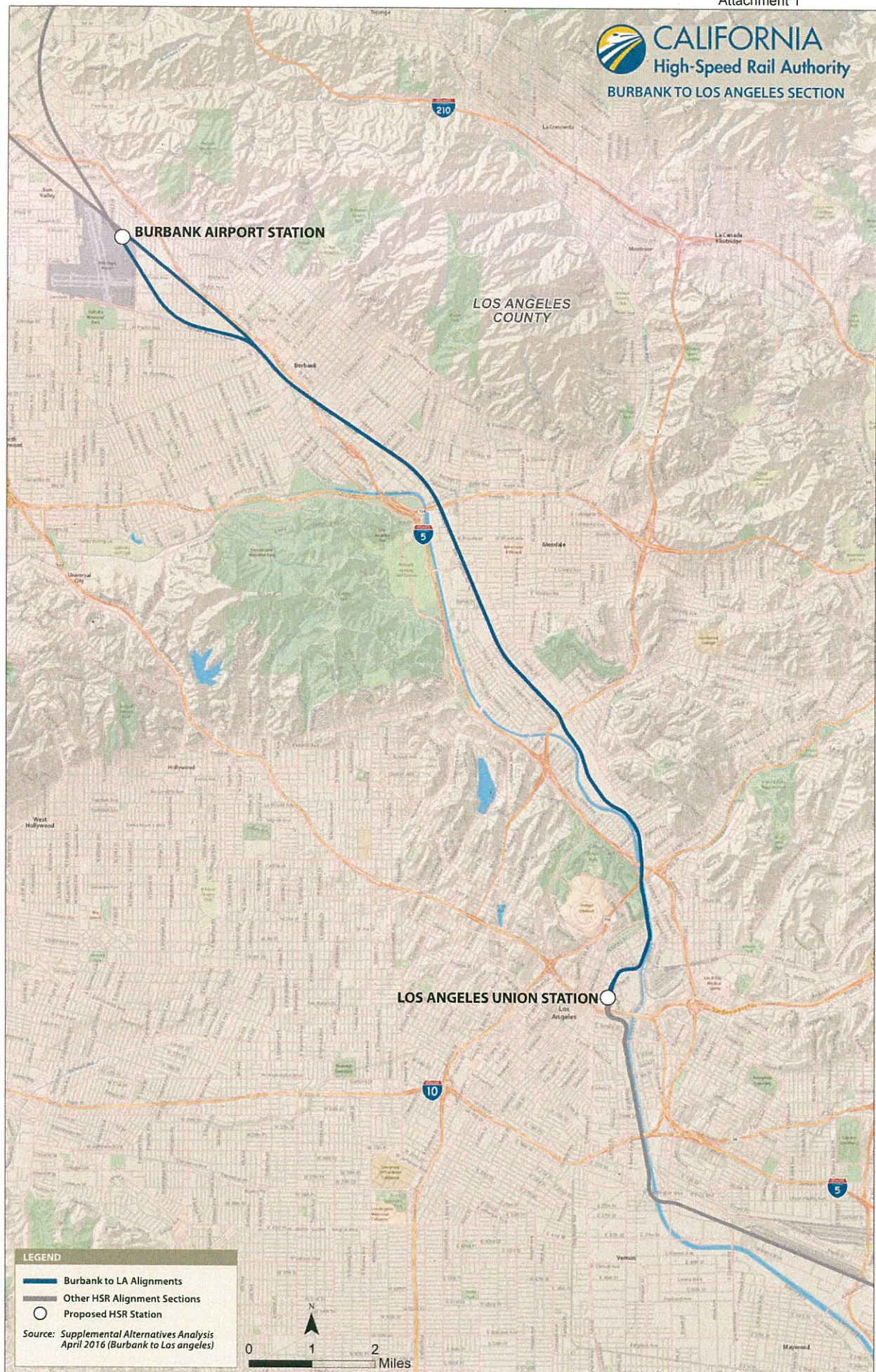
SAH:JJ:DPH  
DSP:JT:ns

### **Attachments (2)**

c:     Executive Office, Board of Supervisors  
       County Counsel  
       Parks and Recreation  
       Public Health  
       Public Works  
       Regional Planning  
       California High Speed Rail Authority

# **ATTACHMENT 1**







## **ATTACHMENT 2**

## **UPDATE ON THE HIGH-SPEED RAIL, BURBANK-LOS ANGELES SECTION DEPARTMENTAL COMMENTS**

### **Department of Regional Planning (DRP)**

**Contact:** Max Thelander, (213) 974-6476, mthelander@planning.lacounty.gov

### **Overview of Burbank-LA Section (2016 Supplemental Alternatives Analysis)**

- 12-mile segment running along the existing Metrolink rail corridor, entirely or mostly at-grade, in a dense urban setting. (See Exhibit 1)
- Does not pass through any unincorporated County areas.
  - Passes through cities of Burbank, Glendale, and Los Angeles.
  - In or adjacent to SD 1, 3, and 5.
- In contrast to the Palmdale-Burbank section (reviewed by DRP in August 2016), the Burbank-LA section has:
  - Fewer alignment alternatives currently under consideration, fewer significant differences between these alignments, and fewer significant shifts between past and current alignment proposals.
  - Significantly less uncertainty and complexity related to technical feasibility, cost, and potential impacts.

### **Key Planning Issues for Burbank-LA Section**

- Los Angeles River adjacency (See Exhibit 2)
  - There should be careful, ongoing evaluation of High Speed Rail's compatibility with River-related planning efforts, including the LA River Master Plan, County Master Plan update, and US Army Corps/LA City Ecosystem Restoration Project.
- Multi-modal connections
  - LA Union Station: Master Plan calls for High Speed Rail to have at-grade, rather than elevated platform.
  - Burbank Airport Station: Proposed extension of Metro Red Line to connect to the Burbank Airport.

### Changes Since 2014: Project-Wide

- Passenger service now projected to commence between Silicon Valley and Central Valley in 2025, instead of between Merced and San Fernando Valley in 2022.
- Palmdale-LA project section split into two sections (Palmdale-Burbank, Burbank-LA). Reasons:
  - “Initial Operating Section” proposes interim terminus at Burbank airport, later extension to Union Station (eventually to Anaheim and San Diego).
  - Very different issues and potential impacts between the two sections. Federal Railroad Administration determined that “separate environmental documents would be more beneficial to address impacts and conduct stakeholder outreach.”
- Focus on early improvements to existing infrastructure: New grade separations, safety technology, etc. Intended to provide immediate benefits for existing rail operations while preparing for future High Speed Rail.
- Up-front environmental analysis/approvals for all project sections: Intended to capture funding opportunities for “shovel-ready” projects, and provide earlier certainty to other planning agencies and community stakeholders.

### Changes Since 2014: Burbank-LA Section

The two most significant changes since the 2014 SAA relate to the southern-most subsection, between SR-2 and Union Station. (See Exhibit 3):

- Tunnel alternative eliminated
  - High cost (\$200-260 million per mile, four times higher than at-grade alternative).
  - Impacts of tunnel portals at Rio de Los Angeles State Park and Los Angeles State Historic Park.
- Viaduct along Main Street eliminated
  - Had previously been “a major stakeholder concern” due to noise, visual impacts, and residential and commercial displacements.
  - Proposed alignment shifted east to follow existing right of way along the LA River.

### Burbank-LA: Subsections and Alternatives

- Two alternatives between Burbank Airport and Alameda Ave.
  - Dependent on alignment selected for the Palmdale-Burbank Section. If SR-14 or E1 is selected: At-grade station at Burbank Airport, if E2: Underground station at Burbank Airport.
- One alternative between Alameda Ave. and SR-2.
- One alternative with two “options” between SR-2 and Union Station: “Shared” and “Dedicated” (same alignment)
  - “Shared” option would require a new grade-separated flyover, with greater potential for noise and visual impacts, commercial/industrial displacements, and disruption of existing rail operations.
  - “Dedicated” option “could be slightly inside of” the Taylor Yard / G2 Parcel, where LA City is planning a park.

### Elements Common to All Alternatives

- New grade separations for several arterials.
- Realignment of existing Metrolink, Amtrak, and Union Pacific operations.

### Timeline and Next Steps

- Primary purpose of the Preliminary/Supplemental Alternatives Analyses (PAA/SAA) is to evaluate each alternative for technical feasibility, cost, and ability to meet the statewide project objectives (travel time, etc.).
- Environmental/community impacts are considered in PAA/SAA, but only at a “screening level,” with detailed analysis deferred to the EIR/EIS. However, this distinction appears to be a source of considerable confusion for the public and many community stakeholders.

2010-2014	Palmdale-LA alignments refined through multiple Preliminary/Supplemental Alternatives Analyses.
May-June 2014	Five open house meetings held
July 2014	Notice of Preparation / Notice of Intent published
August 2014	Seven public scoping meetings held
November 2015	Three open house meetings held
February 2016	2016 Business Plan (statewide)
April 2016	Most recent SAA published



November-December 2016	Four open house meetings held
TBD	Identification of "preliminary preferred alternative" for Burbank-LA section, to be carried forward in Draft EIR
December 2017	Release of Draft EIR for Burbank-LA section
2025	Start of passenger service from Central Valley to Silicon Valley

#### Additional Comments from Department Staff

- Joe Decruyenaere (Impact Analysis): The new alternative (2016 SAA) looks superior to the 2014 SAA Alternative since it avoids potential tunnel portal impacts to the Rio de Los Angeles State Park.
- Bruce Durbin (Ordinance Studies): Both Burbank and Whiteman Airports may potentially be impacted, but this will depend on which of the three proposed alignments is chosen for the Palmdale to Burbank section, and what type of station (underground, at, or above grade) is chosen for the Burbank airport station.

#### **Department of Public Works (DPW)**

**Contact:** John Walker, (626) 458-3900, jwalker@dpw.lacounty.gov

The Department has completed its review of the April 2016 Supplemental Alternatives Analysis (SAA) Report for the Burbank to Los Angeles section of the California HSR project proposed by the California HSR Authority.

The Burbank to Los Angeles section proposes to connect the Burbank Airport area with the Los Angeles Union Station. The SAA Report studies three alignments that generally follow the existing Southern California Regional Rail Authority tracks adjacent to the Los Angeles River. The alignments are mostly the same but diverge from each other in the vicinity of the stations and differ in whether the high-speed trains share track with conventional rail or use dedicated tracks.

The following comments pertain to all three alignments:

#### **Los Angeles River**

- The Authority should work closely with the Los Angeles County Flood Control District on the design of the proposed crossing over the Los Angeles River, including the scope and timeline of their hydrological/hydraulic technical studies. The District would like to review the draft documents prior to their release to the public.

- A future expansion of the Los Angeles River may be needed to provide additional flood control capacity along the stretch through Elysian Valley. Although no formal plans are in motion, the District will need to ensure sufficient clearance on both banks of the river to allow for potential future widening, maintenance, and multiuse trail purposes.
- The proposed alignments may impact the operation of a critically important gaging station, F57 (see Exhibit 4), located in the Los Angeles River. The data from this facility is essential for the Upper Los Angeles River Area Watermaster. The station and its access must be preserved throughout the duration of the entire project, including staging and construction. If the chosen alignment involves the construction of a new column or pier within the river upstream of F57, the accuracy of the station will be lost and the data would be unusable, and the Authority would need to build a replacement gaging station to accommodate the river modifications.
- The District owns and operates storm drains and channels within the project limits. They should be identified in the design plans and protected in place during construction. The proposed project should not hinder the District's ability to access and maintain any of its facilities.
- Any proposed changes to the District's facilities will require a flood permit from Public Works' Land Development Division. Appropriate Best Management Practices should be implemented during construction to reduce and eliminate construction debris from entering flood control facilities, including channels, storm drains, catch basins, and manholes.

### **Los Angeles Union Station**

- Coordinate with the Los Angeles County Metropolitan Transportation Authority on their Link Union Station project.

If you have any other questions or require additional information, please contact John T. Walker, Programs Development Division, at (626) 458-3900 or [jwalker@dpw.lacounty.gov](mailto:jwalker@dpw.lacounty.gov).

### **Department of Parks and Recreation (DPR)**

**Contact:** Jui Ing Chien, (213) 351-5129, [jchien@parks.lacounty.gov](mailto:jchien@parks.lacounty.gov)

Previously, DPR submitted a response letter to the Authority on September 11, 2014 in response to a Notice of Preparation of an EIR for the Burbank to Los Angeles Section (Exhibit 5).

Portions of County Trails #2 Los Angeles River Extension Trail (County) and #65 Rim of the Valley Trail (Multi-jurisdictional) are in the vicinity of the proposed project. DPR's main concern is for continued multi-use (equestrian, hiking, and bicycling) trail connectivity.

DPR looks forward to continued collaboration with the Federal Railroad Administration, California High Speed Rail Authority, throughout the project planning process.

DPR is also concerned over aesthetics, noise and air quality impacts during the construction and operation, which will be discussed in the EIR. The impacts associated with the proposed project may affect trail user's experience within the County's regional trail network and trail segment linked within other jurisdictions and trail systems.

**Department of Public Health – Environmental Health (DPH-EH)**

**Contact:** Aura Wong, (626) 430-5130, [auwong@ph.lacounty.gov](mailto:auwong@ph.lacounty.gov)

**Noise**

Both design options will result in some increase in noise levels during the construction and operational phases of the Project. The Authority has committed to mitigating all noise impacts that are classified as severe under FRA guidelines (FRA High Speed Ground Transportation Noise and Vibration Impact Assessment (2012)). However, some residents have opposed the implementation of some of these mitigation measures, specifically sound walls/noise barriers. What mechanism will the HSRA use to minimize opposition to such mitigation measures?

For the shared option, there will be an additional flyover structure which will result in an increase of the angle of incidence and propagation of diffracted noise through adjacent communities.

DPH-EH will submit more specific comments when the acoustical analysis and EIR is received by this office. The results of the analysis will aid in determining the full environmental noise impact associated with the implementation of the project.

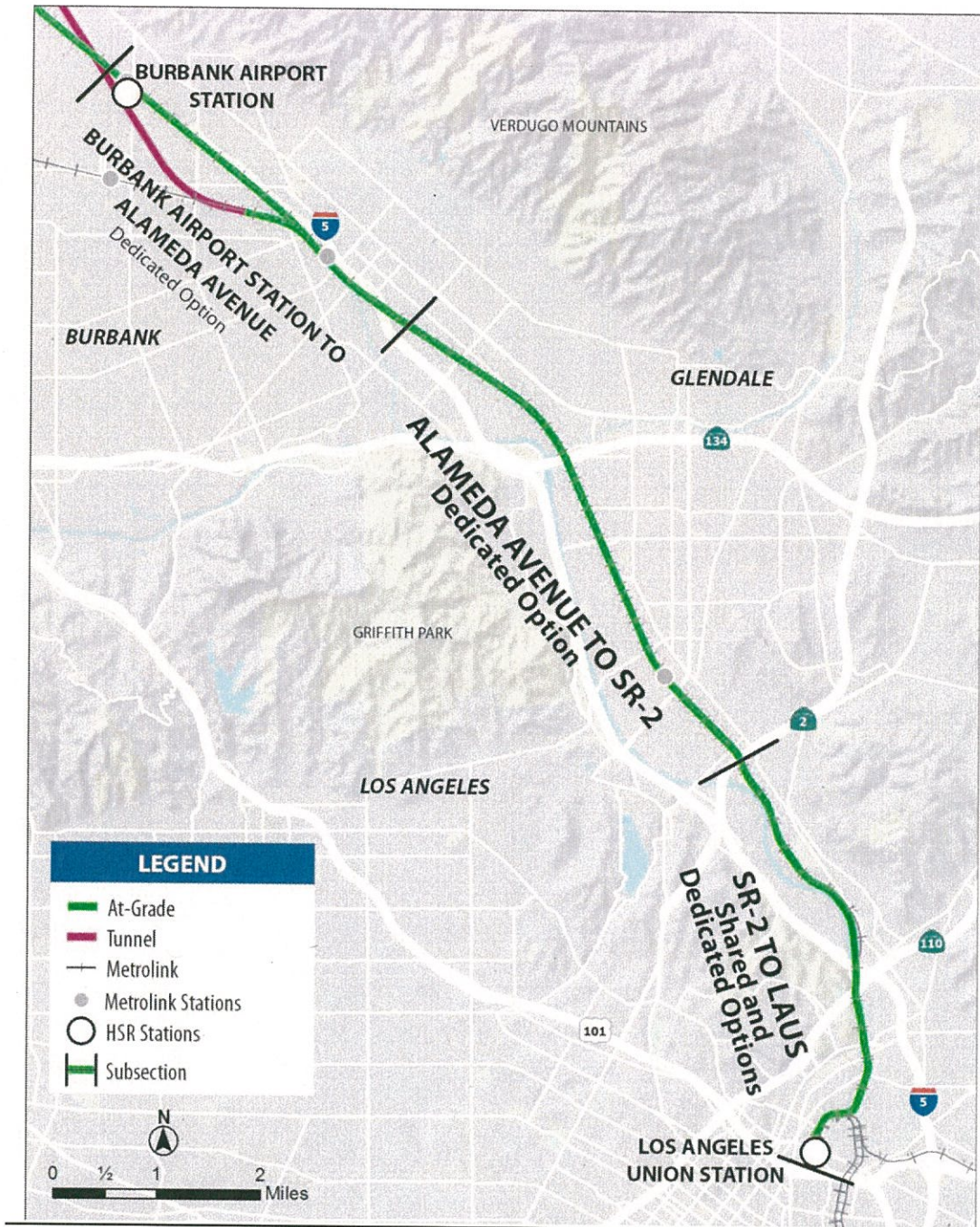
The County's Noise Control Ordinance states that operating or permitting the operation of any device that creates vibration which is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property, or at 150 feet (46 meters) from the source if on a public space or public right-of-way is prohibited. The perception threshold shall be a motion velocity of 0.01 inches/sec over the range of 1 to 100 Hz. This buffer distance should be incorporated into the design elements of the project.

**Health and Safety**

The Positive Train Control (PTC) system allows engineers to receive continuous information about speeds restrictions, work zones, and other safety impacts. The PTC system also serves as a failsafe system. Would the placement of the Metrolink line and the HSR line next to each other have an effect on signal transmission and/or signal interference?

**Exhibit 1**

Map showing the Burbank-LA alternatives and subsections discussed in the April 2016 SAA.

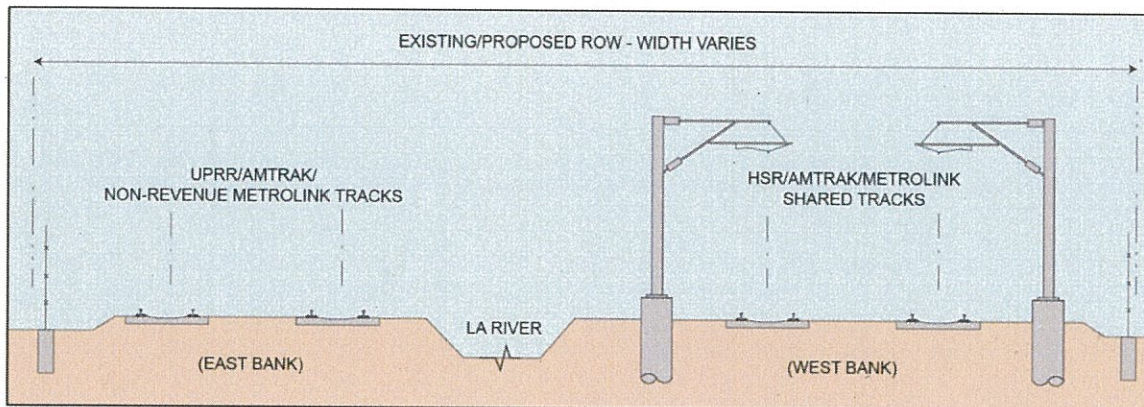




## Exhibit 2

Cross-sections for the subsection between SR-110 and Union Station depict the Los Angeles River constrained by two sets of rail tracks on either side.

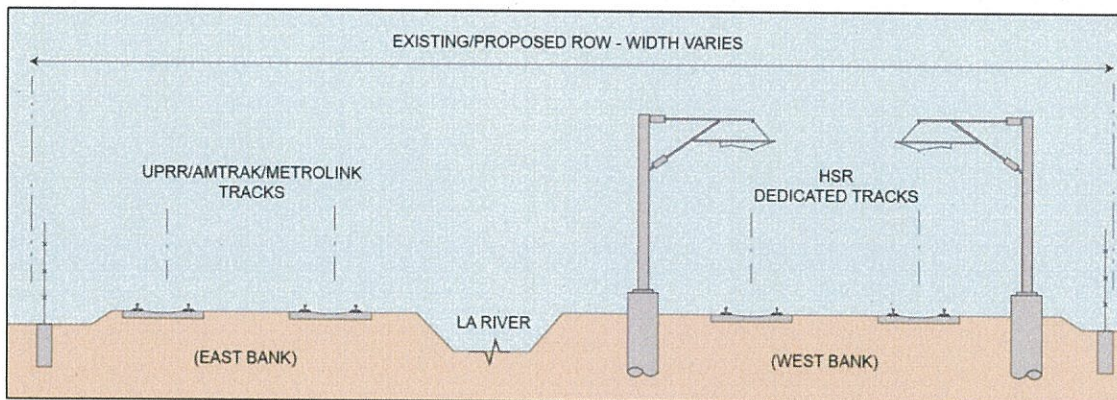
### "Shared" Option



Source: STV/JLP, 2016 (figure not to scale)

The shared tracks would cross the Los Angeles River just north of SR-110 and run along the west bank. UPRR, Amtrak, and non-revenue Metrolink trains would operate on the east bank of the River.

### "Dedicated" Option



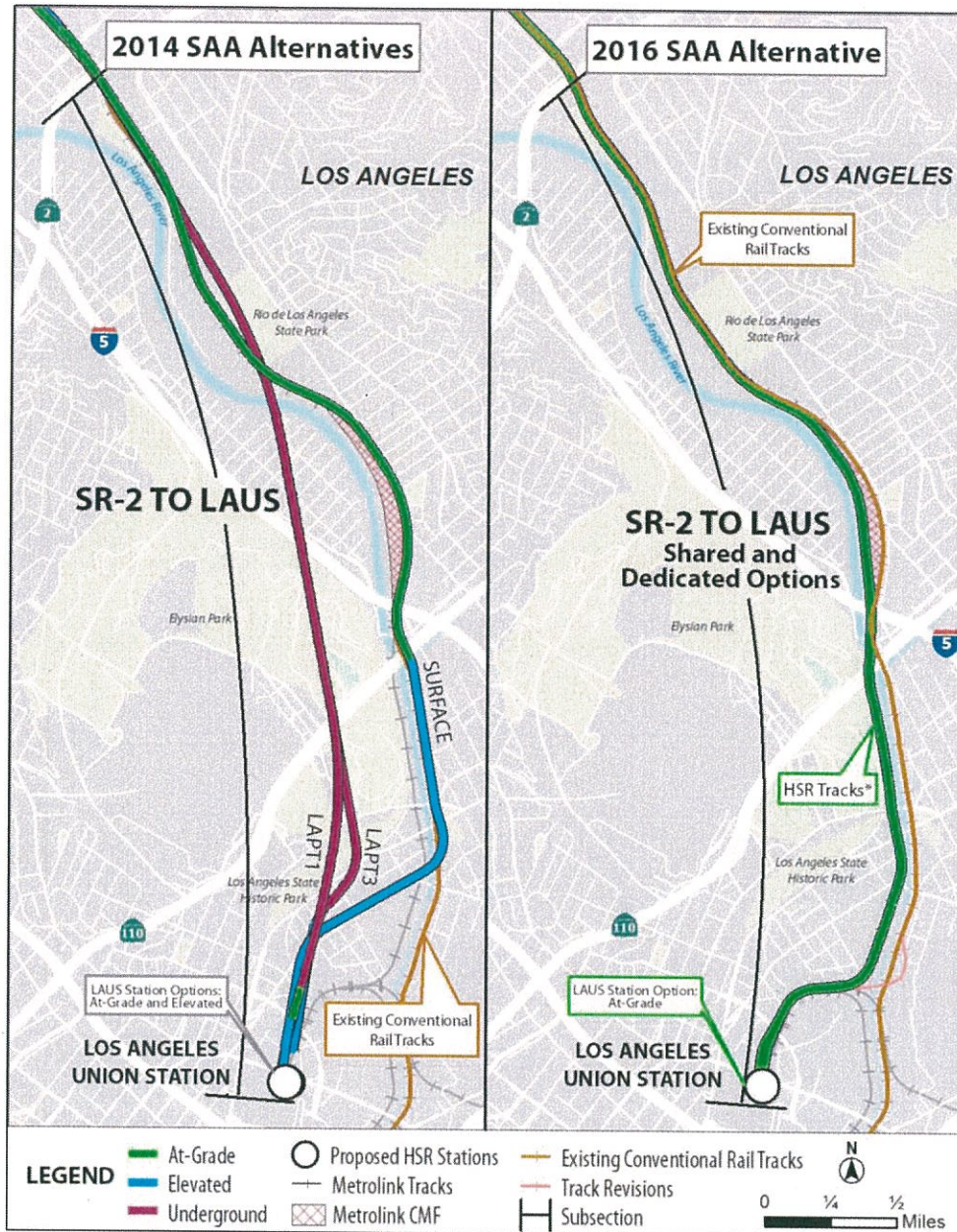
Source: STV/JLP, 2016 (figure not to scale)

The dedicated high-speed rail tracks would cross the Los Angeles River just north of SR-110 and run along the west bank. UPRR, Amtrak, and Metrolink trains would operate on the east bank of the River.



### Exhibit 3

The tunnel (purple) and elevated (blue) alternatives considered in the 2014 SAA have been eliminated in the 2016 SAA.



ATTACHMENT A  
LOCATION OF LOS ANGELES RIVER F57 GAGING STATION





COUNTY OF LOS ANGELES  
DEPARTMENT OF PARKS AND RECREATION

*"Parks Make Life Better!"*

Russ Guiney, Director

John Wicker, Chief Deputy Director

September 11, 2014

Sent via email: burbank\_los.angeles@hsr.ca.gov

Mr. Mark A. McLoughlin  
Director of Environmental Services  
ATTN: Burbank to Los Angeles Section  
California High-Speed Rail Authority  
Southern California Regional Office  
700 North Alameda, Room 3-532  
Los Angeles, CA 90012

Dear Mr. McLoughlin:

**NOTICE OF PREPARATION OF A PROJECT ENVIRONMENTAL IMPACT  
REPORT/ ENVIRONMENTAL IMPACT STATEMENT FOR THE CALIFORNIA  
HIGH-SPEED RAIL SYSTEM BURBANK TO LOS ANGELES SECTION**

The Notice of Preparation of an EIR/EIS for the Burbank to Los Angeles section of the California High-Speed Rail System has been reviewed for potential impact on the facilities of the Los Angeles County Department of Parks and Recreation (DPR). Construction of the project as described in the Notice of Preparation may impact facilities under the jurisdiction of this Department.

In reference to Exhibit 1, #2 Los Angeles River Extension Trail (County) and #65 Rim of the Valley Trail (Multi-jurisdictional) of this Department are in the vicinity of the proposed rail alignments. These trail alignments either bisect or run parallel to one or more of the High Speed Rail alternatives. DPR's main concern is for continued multi-use (equestrian, hiking and mountain bicycling) trail connectivity. Solutions to possible conflicts between the final alignment of the High Speed Rail alternatives and County trails include: trail under-crossings and re-routing. DPR will require recordation of trail easements and construction of trails in specific areas where the final alignment of the High Speed Rail intersects existing or proposed Board-adopted County trails, and multi-jurisdictional trails, such as the Rim of the Valley Trail. We look forward to continued collaboration with the Federal Railroad Administration, California High Speed Rail Authority, throughout the project planning process.

DPR is also concerned over aesthetics, noise and air quality impacts during the construction and operation. The impacts associated with the proposed project may affect trail user's experience within the County's regional trail network and trail segment linked within other jurisdictions and trail systems. Mitigation for aesthetics impacts should




Mr. Mark A. McLoughlin  
September 11, 2014  
Page 2

include vegetative screening of the project site so that it can create visual relief for the trail users.

Thank you for including this Department in the review of this notice. Should you have any questions regarding trails, please contact Mr. Robert Ettleman at (213) 351-5134 or [rettleman@parks.lacounty.gov](mailto:rettleman@parks.lacounty.gov). For any other inquiries, please contact Ms. Jul Ing Chien at (213) 351-5129 or [jchien@parks.lacounty.gov](mailto:jchien@parks.lacounty.gov).

Sincerely,



Kathline J. King  
Chief of Planning

KK: JIC: OR/Its Response to CA High Speed Rail Burbank to LA Section

Enclosure : NOP/IS CA High Speed Rail Burbank to LA Section – Trail Review Map

c: Parks and Recreation (N. E. Garcia, F. Moreno, R. Ettleman, H. Sohm, D. LaCroix)

